Drug & Cosmetic INDUSTRY

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In this issue . . .

CIVILIAN MORALE AND COSMETICS

NOVEMBER 1941

ONE STANDS OUT

In every field of endeavor one stands out from the crowd. There's a great name in Oil, an outstanding company in Steel; in fact, in any industry you think of, one name will come first to your mind. This special recognition comes only after years of hard work.

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ANCHOR HOCKING

ANCHOR HOCKING GLASS CORPORATION
LANCASTER, OHIO

Drug & Cosmetic INDUSTRY

NOVEMBER 1941

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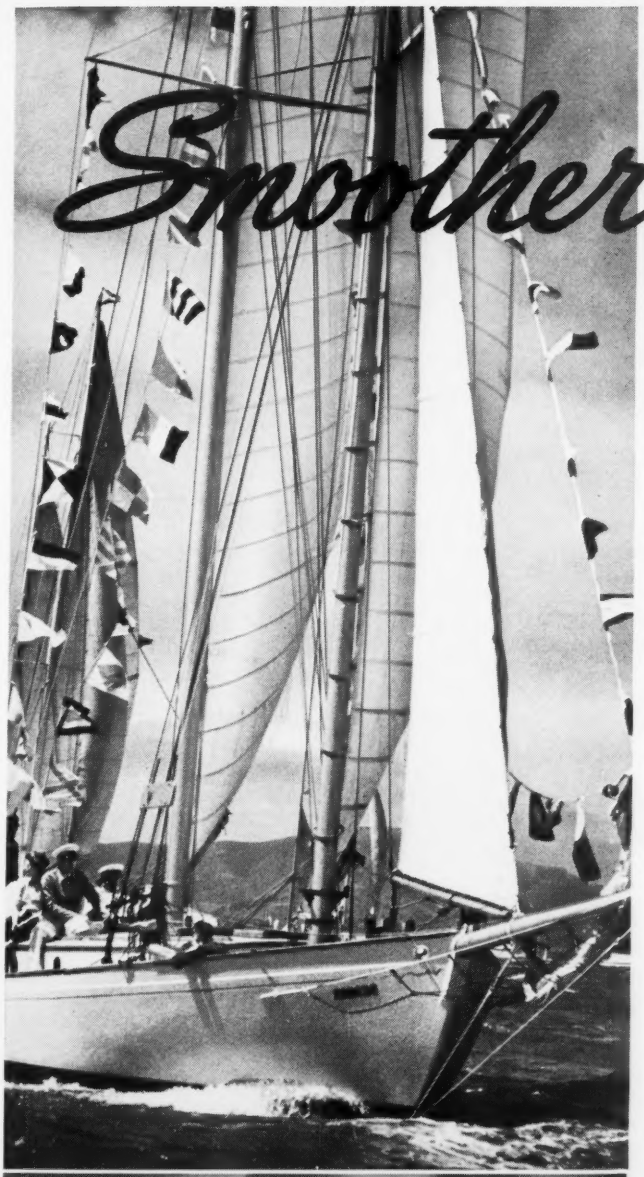

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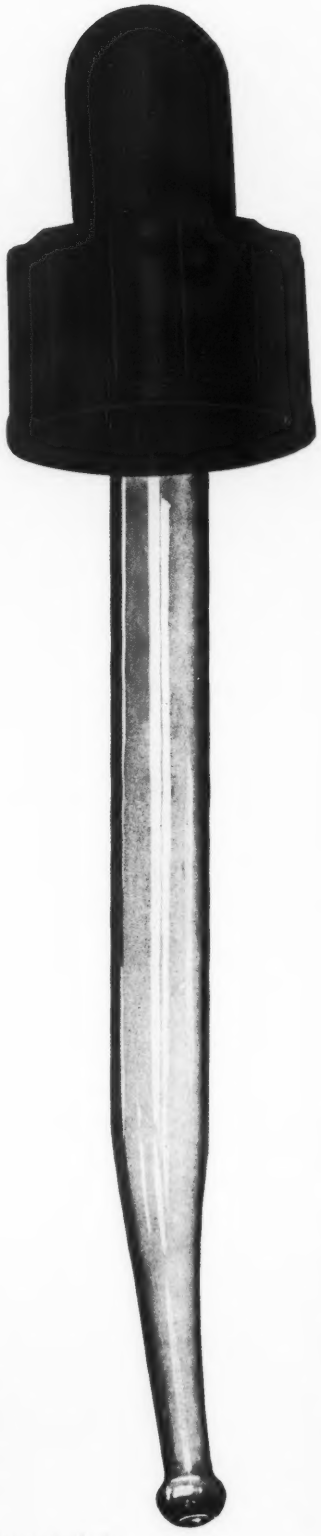

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INSIDE NEWS

NOVEMBER — PREPARED BY NATIONAL CAN CORPORATION, NEW YORK, N. Y. — 1941

"Back Stage" with National's New Research Department

You are invited "Back Stage" of National's new Research Department. Since we realize you can't all visit our Laboratories personally, we are going to present certain problems which will give you an idea of how they are handled through Research.

The first consideration in the manufacture of a can, is the material from which it is made. The wrong type of plate may give rise to many problems. Therefore, let us consider one of these.

THE CAN ENDS:

At first thought, the can end may appear to be so simple that no problems could arise in either its manufacture or use. It is simple, if we only consider one of its functions; that of acting as part of the wall of a container. But the can end is not merely a static, rigid, wall, for it is also a pressure relieving diaphragm; distending under pressure and returning to its normal shape when the strain is relaxed. It is in this action that an end must successfully withstand some severe stresses. Therefore, the problem of determining the best possible combination of design and materials so that the optimum of performance can be attained arises. In addition, it must be solved within the economic limits of low selling cost.

The question is, how to select the best possible combination of materials and design? It's not determined by guess-work.

Every end needs material of the right kind which consists of tin plate. This must be the best available, which means Cold Reduced Plate of the proper gauge and temper.

Now, there are many sizes of ends, and it is simple to see that the same design, temper, and gauge of plate, cannot be used on all sizes from the smallest to the large gallon size.

The selection of the proper combination is not left to guess-work, or even practical experience. Research has devised tests which provide facts, and for the selection of the proper combination of design and material, the apparatus pictured at right has been devised. (21)

The operator merely places a can in the apparatus and applies steam pressure to the end. Watching the end for signs of breakdown as the pressure increases. When a definite pressure level has been reached the operator turns off the steam, releases the pressure and applies a vacuum. This is repeated at many different pressure levels until the characteristics of this end are thoroughly understood. This data, in combination with other correlated data enables him to select the proper combinations to give optimum end performance.

Crabmeat Industry To Expand Production

America's crabmeat canning industry is planning an expansion of production facilities. The industry is acting to take advantage of the market created in America by the new tariff on imported crabmeat, the tariff now being 22½ percent ad valorem as compared to 15 percent previously.

The industry feels that this additional protection will permit it to develop rapidly.

The largest supply of crabs available to American canners is found along the Gulf Coast and along the Atlantic Coast up to Long Island. However, canners in Maine are planning greatly increased outputs. During the past year these food companies confined their merchandising efforts on canned crabmeat to New England, but they now intend

(Advertisement)

BY
NATIONAL CAN

NOVEMBER PREPARED BY NATIONAL CAN CORPORATION, NEW YORK, N. Y. 1941

to go after the national market. One canner has increased the personnel in its plant from 20 to 135 workers in the last year, and 50 more have been employed to pick the crabmeat from the shells.

The American crabmeat industry in 1940 produced 775,671 lb. and it is estimated that the 1941 figure will be up to 1,000,000 lb. However, the industry feels that production must be stepped up to 6,000,000 lb. or more to capture the new market in America. The raw supply of this increase is available, the capital can be obtained and technical knowledge has been developed so that the desired increase in volume is quite within the realms of possibility.

Formerly nearly all the canned crabmeat used in this country came from Japan, Russia and California. (22)

New Wax Source

Green cotton, said to yield 30 times as much wax as the ordinary white varieties, gives promise of becoming an important source of wax for polishes. Manufacturers of furniture polishes, floor polishes, auto polishes and similar protective finishes requiring a wax with a high melting point would benefit chiefly from the use of the new material, especially in case of an acute shortage of wax from the usual sources. Southern cotton farmers would find an always welcome new market for their crop. (23)

New Food Plant Bacteria Test

Need for a rapid and reliable method for determining the bacterial contamination on flat surfaces in food plants, has led the New York State Agricultural Experiment Station at Geneva, to devise a simple procedure for this purpose.

The method is called the "contact plate" method and is said to require a minimum of time and equipment and to be more practical for field use than any other method available.

Briefly, the contact plate method consists of allowing a layer of agar to harden on a sterilized tin disk resting in a sterilized Petri dish. When ready for use, the tin disk with its agar coating may be removed from the Petri dish with the aid of a small suction cup, the sterile agar brought into contact with the surface to be examined, the contact plate then replaced in the Petri dish and incubated at 32 deg. C for 24 to 48 hours, depending upon the type and number of bacterial colonies which develop.

Not only has the method proved useful in routine sanitary inspection work, but it is also serving as a valuable means for comparing different procedures for sterilizing food dispensing and food processing utensils. (24)

Shark Oil . . . A Vitamin Source

Sharks are generally considered predatory and useless denizens of the sea but scientists declare they are a boon to humanity. Recently Governor Olson, of California, signed a measure designed to protect this fish in California waters, vitamin A being the answer. For about five years the California Packing Corporation has been making a study of the shark and its habits. Little has been learned of its habits, but it has been found that shark liver oil is one of the best sources of vitamin A. Shark liver carries far more unit potency of vitamin A than does the better known cod liver or halibut liver. The latter two produce fractional units of a gram, while the liver of the shark has a potency of from 10 to 20 units. Soupfin shark liver has zoomed to new heights in price in Pacific Coast fishing centers and quite a few boats are out after sharks instead of food fish. At Astoria, Ore. soupfin shark liver is now quoted at $17,000 a ton, or more than the price of bar silver. (25)

A green copper paint was recently introduced by a large American copper producer to supplement its regular copper paint, which has been on the market for some time. (33)

Baltimore plant of The National Can Corporation

Technical Topics

A RESEARCH LABORATORY has reported an improved method of taking the yellow plant color, particularly carotene, out of white flour by using chlorine dioxide, a new gas to be used for flour bleaching; nitrogen trichloride aided by benzoyl peroxide is the commonly used gas. (26)

A U. S. PATENT has recently been procured covering the mechanical bunching of just enough stalks of asparagus to be mechanically inserted into a can without damage to tips; butts are cut off after bunch has been formed. (27)

EDIBLE OIL AND RICE FLOUR heated with addition of water may be used as a plasticising agent in cheese processing according to a recent patent. (28)

BIOTIN (VITAMIN H) essential to plant and animal life and found in potatoes, potato starches, milk, liver, yeast and egg yolks, has been isolated and is now under study for synthesizing by research workers according to a recent report. (29)

WILD ROSEHIPS and other hedgerow products are being suggested as a valuable source of vitamin C in Britain. It is intended to encourage their use during the coming autumn. (30)

CHLORINATION of channel blacks at elevated temperatures, so that the resulting material contains from 5 to 20 percent of chlorine is claimed to result in a product giving improved physical properties to rubber in which it is incorporated. Higher tensile strength, greater resistance to abrasion, and less development of heat on flexing are among the improvements said to result. (31)

SHELLAC modified with formaldehyde, urea, melamine, and similar materials, can be worked by the usual hot plastic molding technique, it has been shown in recent investigations by the Indian Lac Research Institute. It has also been found that shellac modified with formaldehyde and guanidine carbonate, and filled with jute waste can be injection molded. The heat resistance of the modified shellac molded articles is stated to be about 90°C. By gradual after-baking the resistance can be raised to 120°C. and more, it is added. (32)

For further information on any of these articles write to National Can Corp., 110 E. 42nd Street, New York City.

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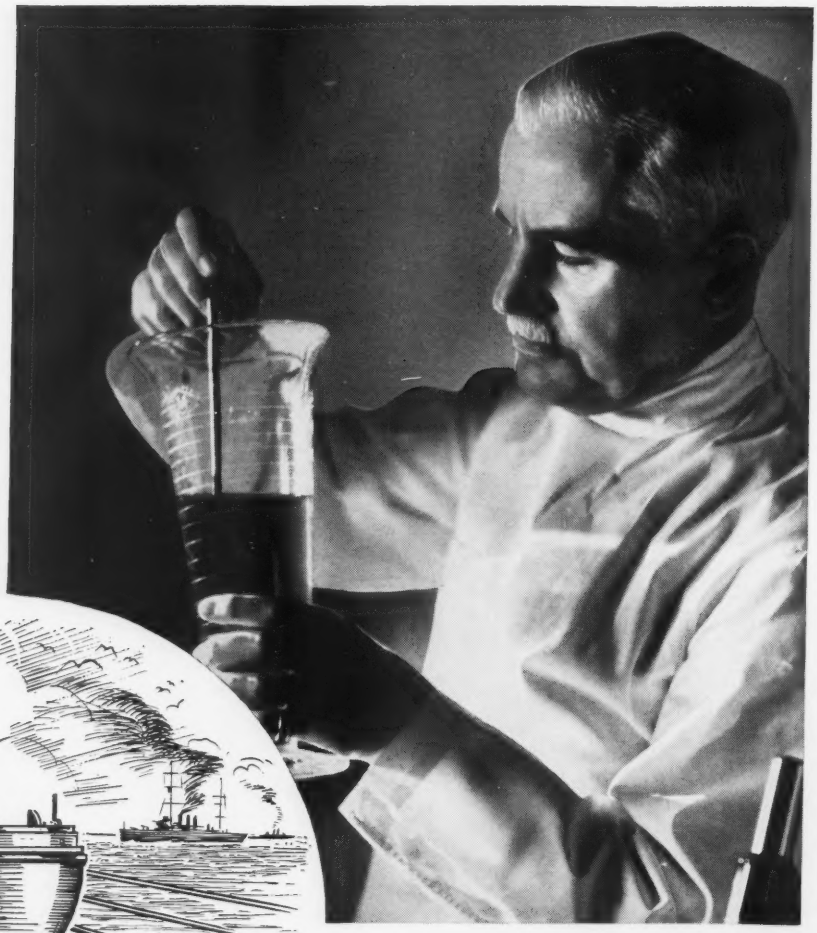
Ever abreast of Science and Research



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NYQ

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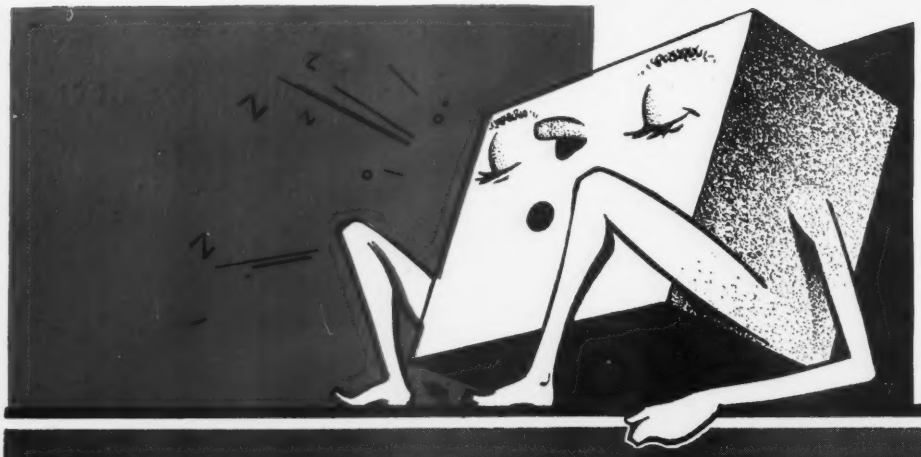

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A Transparent Package by Ritchie Will

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HAVE YOU noticed how many products in Transparent Packages are on display in almost every store today?

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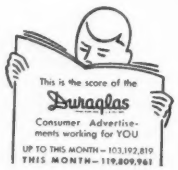
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NO. 8

ALUMINUM, DEFENSE, AND YOU

ALCOA

OCTOBER WAS A MILESTONE MONTH

There have been three other such milestones for civilian uses of aluminum during the past 18 months.

WHEN, ON MARCH 25, 1940, the price of Alcoa Aluminum ingot was reduced from 20c to 19c a pound, it automatically increased the number of civilian applications where using aluminum would be good cost arithmetic.

19¢

Every application carries its own special set of conditions. They determine how much you can pay to save a pound of weight, to get extra heat conductivity, or reflectivity, or what not. 19-cent ingot widened the circle of aluminum's usefulness.

AUGUST 1, 1940 WAS THE SECOND milestone. Economies growing out of greater volume of manufacture, and economies stemming from continuing research, brought the announcement of 18-cent ingot. The civilian manufacturer looking to his future could see, in the offing, more ways to use aluminum than ever before.

18¢

Perhaps you were one of the thousands who filed away in your book of futures the reminder that "when this thing is over, we must figure on using more Alcoa Aluminum."

THIRD MILESTONE showed up almost before you got that note made. November 18, 1940 saw another reduction on Alcoa Aluminum ingot to 17c a pound, making a total reduction of 15% in the midst of a general seller's market. Defense got most of the immediate benefit, but the future of aluminum for you, and you, and you, was writ larger than ever.

17¢

THEN CAME 15c INGOT, effective Oct. 1, 1941, with accordant reductions in fabricated forms of Alcoa Aluminum. This means that the arithmetic of weight saving is all new, since last you figured on using this versatile metal in a civilian application. When the emergency is over, the fact is that all your old material cost comparisons will be as dead as a dodo.

15¢

THE ARITHMETIC IS NEW; but the fundamentals just get more so! More than ever, the strong alloys of Alcoa Aluminum are *the* answer to lightness with strength.

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Never before has the reproduction of this indispensable flower reached the heights of beauty and fidelity attained in this new creation.

It is literally impossible to distinguish Jasmin Blossom "V" from the natural product—so nearly has perfection been achieved.

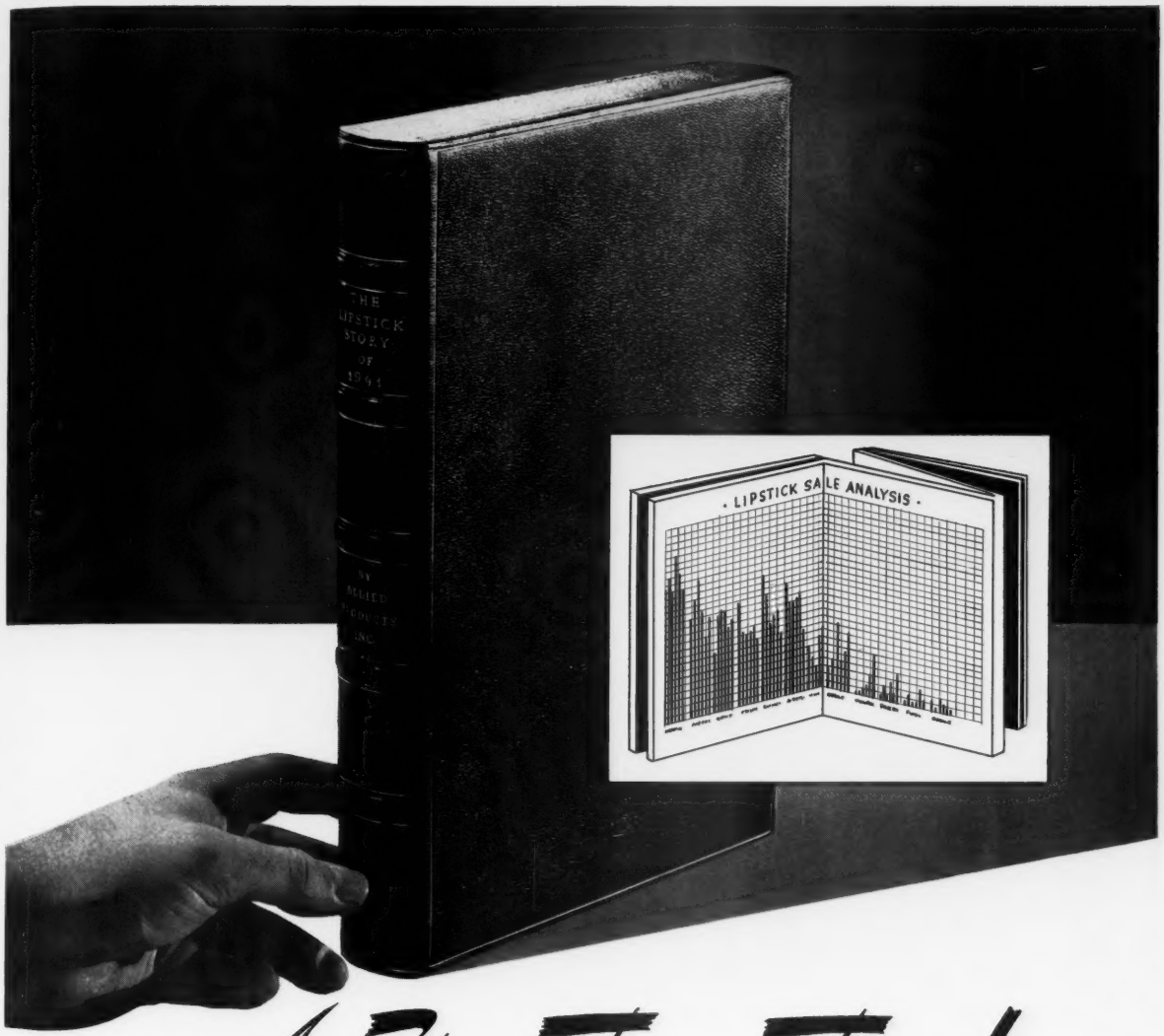
Its moderate cost...only $28.00 per pound... makes Jasmin Blossom "V" widely available as a substitute, in whole or in part, for the natural product—now so scarce and so fantastically high in price, yet so extremely important to your prestige and profits.

This new development deserves more than passing notice. Consider it—send for a working sample—incorporate it in your most significant formulas—and you will find your good judgment vindicated over and over again.

It takes only a moment of your time to start the sample on its way—do it now!

Albert Verley — AROMATICS

ALBERT VERLEY, INC., D. A. BENNETT, *President* • 1621 CARROLL AVENUE, CHICAGO, ILLINOIS
114 EAST 25TH STREET, NEW YORK • MEFFORD CHEMICAL COMPANY, LOS ANGELES

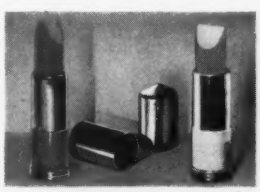


At Your Finger Tips!

What the dictionary is to the writer . . . what the navigation chart is to a pilot . . . consumer surveys are to cosmetic manufacturers. Properly analyzed and applied, these surveys direct his efforts toward keeping his line keyed to fashion . . . to demand . . . and PROFITS!

The APLI chart breaks down production of many millions of lipsticks in all shade groups popular over recent months into *twelve major classifications.* These production figures are an accurate summary of what Milady has preferred in lip color—and become the basic means by which to anticipate her future demands.

A presentation of this factual data to cosmetic company executives will be gladly arranged when an appointment is requested. Important informative material is also available on the subjects of preferred texture, yield and indelibility. Also obtainable, at no obligation, is the complete set of twelve composite lipstick shades prepared from each group of the twelve major lipstick classifications.



BE RIGHT WITH ALLIED . . . Allied manufacturing routine emphasizes rigid analysis by trained specialists before a single shade is released for consumption.

ALLIED PRODUCTS, Inc. 30 ROCKEFELLER PLAZA, N. Y. C.

MAKERS OF THE WORLD'S FINEST COSMETICS AND TOILETRIES • PRIVATE BRANDS EXCLUSIVELY

PLANT AND LABORATORIES: SUFFERN, NEW YORK

INDOLINE

Not a substitute for INDOL but a product superior in

LASTING QUALITY
SWEETNESS and
PERFUME VALUE

Please Write for Free Sample

Norda

ESSENTIAL OIL AND CHEMICAL COMPANY, INC.

NEW YORK OFFICE
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LOS ANGELES: 2800 E. 11TH STREET
ST. LOUIS: 1123 WASHINGTON AVE.
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ST. PAUL: 253 E. 4TH STREET
HAVANA, CUBA: SAN LAZARO #671
CANADA: 119 ADELAIDE ST., W. TORONTO
135 COMMISSIONERS ST., WEST, MONTREAL
ENGLAND: 17 CREECHURCH LANE, LEADENHALL ST., LONDON, E. C. 3

"Why, *this* cold cream smells fresh and sweet!"

It was a daring—and profitable—innovation when the conventional vegetable oils were first replaced with White Mineral Oil in cold creams and cleansing creams. And cosmetic manufacturers are still reaping the profits from the more stable, more saleable products it made possible.

L. Sonneborn Sons, Inc. were the source of oil for this important innovation in *cold cream manufacture. Since then, we* have shared in the development of many other uses of White Oil and Petrolatum by the Cosmetic Industry. This has meant *consistent pioneering research in refining.* And equally consistent teamwork with *manufacturers in evolving special types* of oils and petrolatums to meet their *specific needs.*

Small wonder that successful pharmaceu*tical and cosmetic manufacturers have* learned that it pays to look to Sonneborn *first for products of superb quality and* really practical technical service.

WHERE QUALITY COUNTS —COUNT ON SONNEBORN

WHITE MINERAL OILS

KAYDOL	ORZOL	PURITAN	ERVOL	BLANDOL
U. S. P. Heavy	U. S. P. Heavy	U. S. P. Heavy	U. S. P. Light	U. S. P. Light

CARNATION KLEAROL

PETROLATUMS U. S. P.

TYPE I: *Medium Consistency—White Protopet—Yellow Protopet and other colors*
TYPE II: *Soft Consistency—White Fonoline—Yellow Fonoline*
TYPE III: *Medium Consistency With High Melting Point—White Perfecta*

SPECIALTIES

PROTOWAX—Amorphous (micro-crystalline) wax for pharmaceutical and cosmetic formulation
SONO-JELL— Complete series for liquefying cleansing creams, pomades, ointments, etc.
DEO-BASE— Light hydrocarbon distillate refined to complete freedom from kerosene odor
TRI-OL— Base for soapless oil shampoos. SONOFOAM—Base for soap shampoos

L. SONNEBORN SONS, INC.

Refiners of White Mineral Oil and Petrolatum

Refineries: Petrolia and Franklin, Pa.

NEW YORK • CHICAGO • BALTIMORE • PHILADELPHIA • LOS ANGELES

Southwestern Distributors: Sonneborn Bros., Dallas, Tex.

Stocks Carried in Principal Cities

Staff Allen's

English Distilled Oils

Stafford Allen & Sons Ltd.,
LONDON, ENGLAND

CLOVE
LAVENDER
NUTMEG
ORRIS
PATCHOULY
PEPPERMINT
SANDALWOOD

The Markets of the world accord highest honors to these valuable distilled oils

AMERICAN REPRESENTATION BY

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When it comes to a Choice

COLOR *Wins*

YOUR PRODUCT WILL SELL FASTER in rich, lustrous Maryland Blue. Here's why. Smart, colorful packages are the natural choice of the window trimmer when he wants to "dress" a window . . . of the clerk in arranging open displays . . . of the merchant who stands a few packages near the cash register to stimulate extra sales . . . of the consumer whose natural impulse is to buy with the eye.

PACK TO ATTRACT IN

MARYLAND Blue

MARYLAND GLASS CORPORATION, BALTIMORE, MD. . . . New York: 270 Broadway . . . Chicago: Berman Bros., 1501 S. Lafiin Street . . . St. Louis: Carl Floto, 908 Clark Ave. Memphis: S. Walter Scott, 435 S. Front Street . . . Kansas City, Mo.: Aller Todd, 1224 Union Avenue . . . Cincinnati:

FECTS BY

CAREFUL COMPOSITION

Creating successful effects in photography is a matter of "composition"—the correct arrangement of light and darkness, proper balance of tones and shades. Imagination and special knowledge of technical details are required to achieve outstanding results in this art. And the successful composition and arrangement of odors, too, call for an equal degree of imagination, artistry and technical knowledge.

At Givaudan, the art of arranging odors to obtain successful composition has been developed to an unusual degree. The skill of Givaudan's perfume and odor chemists is *advanced* skill, based on *advanced* knowledge. And what makes it of great value to the manufacturer of perfumes and cosmetics is the special understanding these chemists have of consumer tastes and preferences. Givaudan odors are not only blended for technical correctness, but for basic popular appeal. The number that has found favor in the market is constantly increasing. Leading perfumers and cosmetic manufacturers turn to Givaudan for aid in the creation of odors for all types of products—toilet waters, colognes, powders, creams, lipsticks, suntan lotions, bath salts, and others. Of particular utility are the Givaudan specialties, which may be used in complete lines to create a family effect.

Let Givaudan's staff help you adapt your line to new and changing demands. Outline your problem and ask us for suggestions. Our extensive laboratory facilities are at your service.

GIVAUDAN-DELAWANNA, INC.

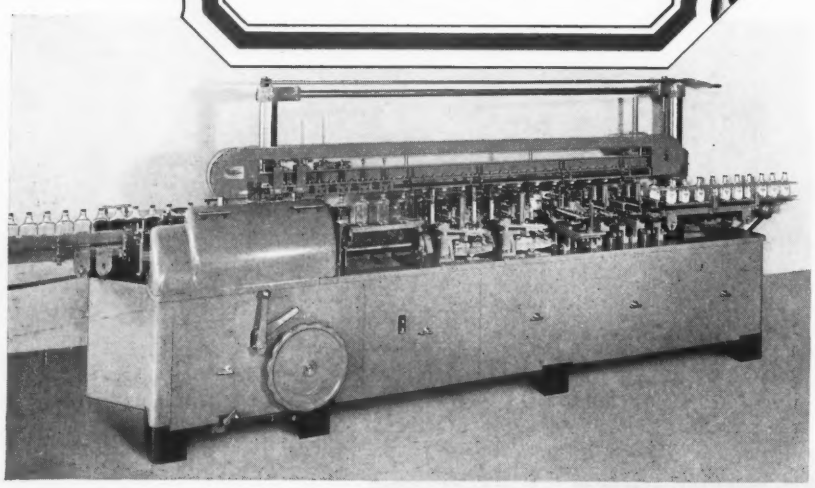
330 WEST 42ND STREET, NEW YORK, N. Y.

BUILT FOR

PRECISION LABELING

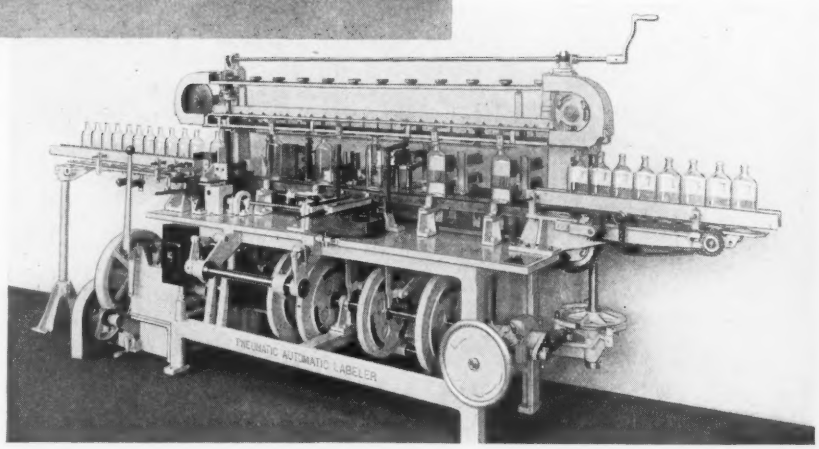
and

LONG DEPENDABLE SERVICE



Hi-speed Duplex Labeler — handles two containers at a time and applies front only, or front and back labels at speeds up to 120 per minute. Can be equipped with spotting device for accurately registering labels in relation to glass design or raised lettering on round bottles. Single or double line discharge available on this model.

Simplex Labeler — one of several models for applying front only, front and back, two front and one back, or partial wrap-around labels to bottles, jars or cans.



Sloppy labeling is an affliction to guard against because it can so thoroughly ruin the appearance of an attractive, well designed container.

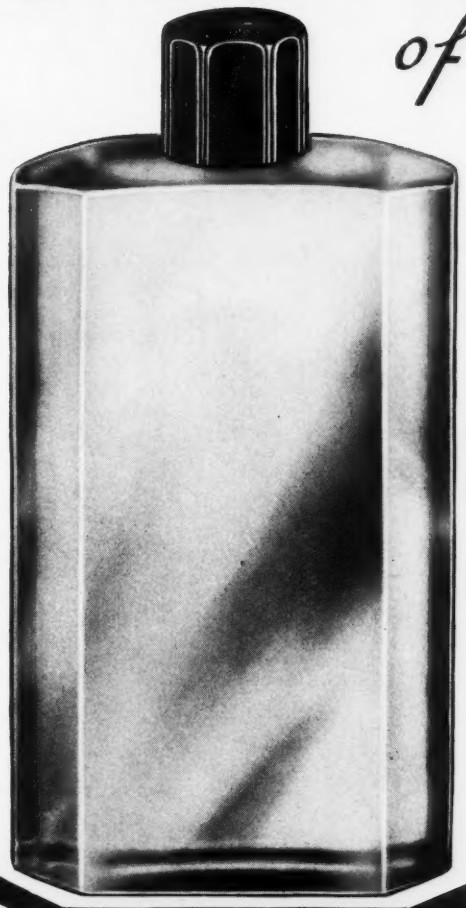
Best prevention is the precision performance of Pneumatic equipment. And best proof of that statement is the continuous repeat orders Pneumatic receives every year from experienced concerns. Pneumatic's medium speed Simplex and Hi-speed Duplex labelers are built to deliver precision performance at a steady, adequate production pace. That kind of dependability pays! Dial escapement intakes which insure gentle handling of glass and easy accessibility are only two of the many factors that make Pneumatic labelers your best investment.

PNEUMATIC
PACKAGING & BOTTLING EQUIPMENT

PNEUMATIC SCALE CORP., LTD.
70 Newport Ave., North Quincy, Mass.
Branch Offices:
NEW YORK • CHICAGO • SAN FRANCISCO • LOS ANGELES

A NEW STOCK BOTTLE

of wide-spread usefulness in the **PERFUME** *and* **COSMETIC** *field*



N-30 - - *take a bow!*

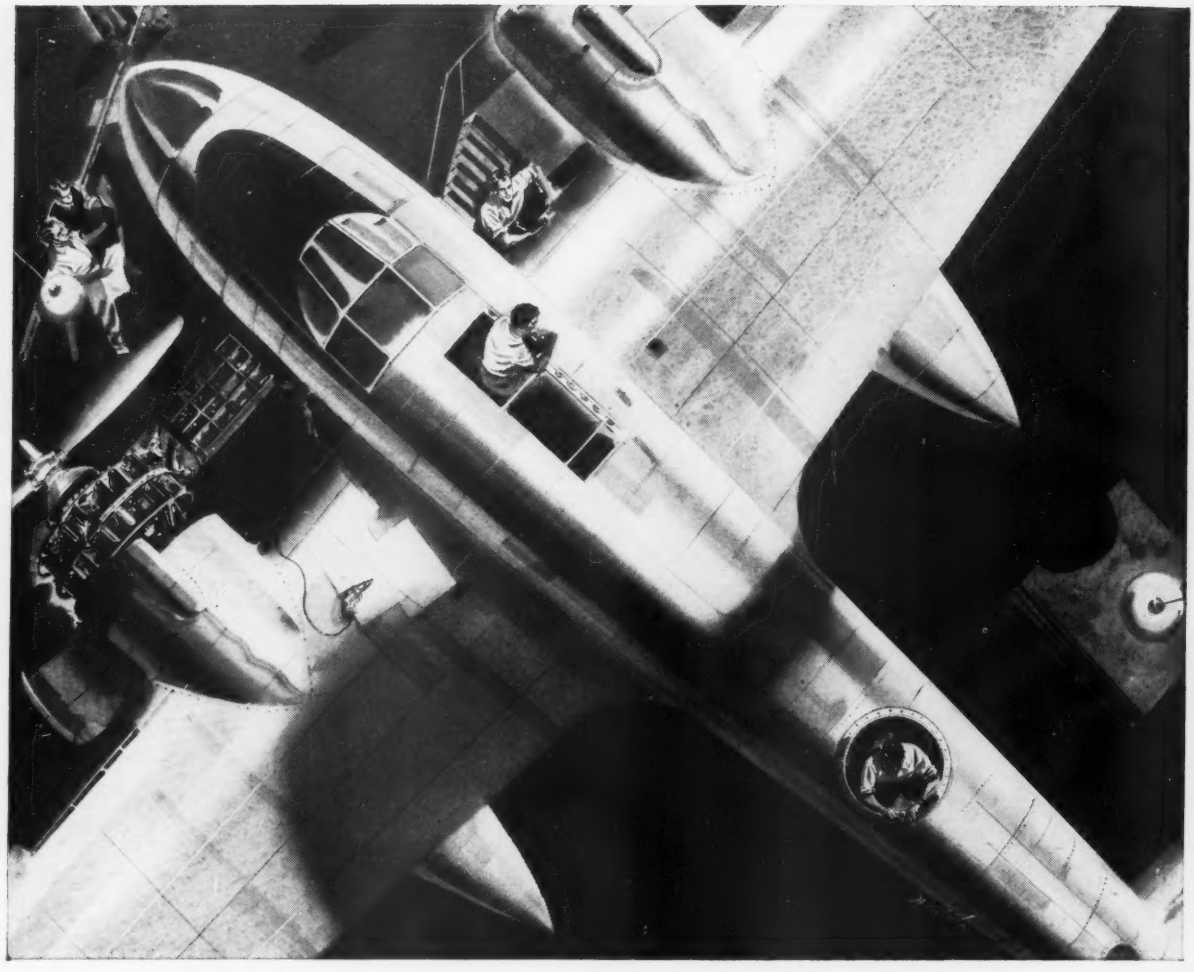
Here is a new Swindell stock bottle that sets a new high in smart, modern packaging without the expense of private moulds! It is particularly well suited for the perfume and cosmetic field—but many alert merchandisers in other fields will recognize it as the answer to their problem. In a broad sweep of sizes: ⅛ ounce, ¼ ounce, ½ ounce, 1, 2, 4, 6 and 8 ounces.

SWINDELL BROS., BALTIMORE, MD.

200 FIFTH AVENUE, NEW YORK • ROBERTO ORTIZ—HAVANA, CUBA

When you think of bottles think of

Swindell



The tin can enlists for the duration

How Changes in America's Most Widely Used Containers Are Aiding National Defense.

YES, the tin can has "joined up." In fact, some of these containers will soon be appearing in new "uniforms."

The reason is this: Tin is one of America's most vital defense materials. To conserve this country's essential reserve supply of tin, the research scientists of the can makers' industry have developed and perfected changes in tin containers that will effect tremendous savings in this vital defense metal.

Take the coffee can, for instance

The vacuum-packed coffee can will soon look slightly different. Its top and bottom are now being made of an enameled steel rather than the tin-plated steel formerly used. This change enables us to make a considerable saving of the tin normally used for coffee cans without sacrificing their ability to guard the freshness and flavor of your coffee.

Food cans, paint cans, oil cans

Practically every other tin container also has undergone changes, each according to its use and contents. An 80 per cent lead coating, instead of the usual lead and tin coating, is being used on cans for such things as paint, oil, gasoline.

On food cans, the tin coating has been reduced 10 per cent. Today's better, higher-grade steels make this possible.

(*Note:* The tin coating on food cans prevents rust on the outside and enables the side seam of the can to be soldered at high speed. It has never had anything to do with the wholesomeness of the food in the can.)

And through these changes you will be proud to know the can makers of America are conserving millions of pounds of tin a year.

And this tin—which has been saved—is now going straight to industries which are turning out the ships and planes and guns that will defend America! This is just a beginning. As rapidly as our laboratories can perfect new changes, new tons of tin will be diverted to defense.

* * *

American Can Company
230 Park Avenue, New York, N. Y.

. . . BEHIND THIS BOTTLE

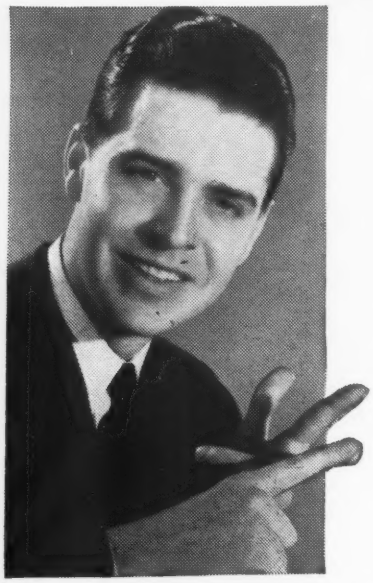
is this M M & R Formula for Quality ☆ A purchasing organization international in scope scours world raw material markets for first quality oils ☆ then M M & R technicians triple-check each Essential Oil sample for quality to make sure it surpasses *U. S. P. Standards* and meets our own rigid quality standards ☆ *the result—where quality is of utmost importance; for example, in the 65,000 drug store, college and hospital pharmacies—a great majority prefer* M M & R Packaged Essential Oils, Refined Balsams and Basic Perfume and Flavor Materials.

MAGNUS, MABEE & REYNARD, INC.

QUALITY ESSENTIAL OILS, BALSAMS, AROMATIC CHEMICALS, BASIC PERFUMES, FLAVORING MATERIALS . . . SINCE 1895

16 DESBROSSES STREET, NEW YORK CITY • 221 NORTH LA SALLE STREET, CHICAGO

Offices in principal cities • In Canada: Richardson Agencies, Ltd., 454 King St., W., Toronto



SPOT STOCKS . . . 3 sizes

OF THE HIGHEST QUALITY

GUM BENZOIN SIAM

LARGE FANCY TEARS
MEDIUM TEARS
SMALL TEARS

Samples and prices on request. Favorable prices on our spot stocks should be of real interest to Gum Benzoin users as there are no further materials coming in from the source and no future shipments have been offered. Write us today.

ALL PURPOSE

PINE BALSAM #3729

Price $2.75 lb.

Not the usual pine character but a real clean refreshing balsam pine odor of the Northern forests. Of special interest in these days of material scarcity, this All Purpose balsam pine may be used in the following products:

in ALCOHOL—entirely soluble
in BATH OILS—will not cloud
in LIQUID SOAPS—will not cloud
in BATH POWDERS—long lasting
in CREAMS—will not discolor
also for BRILLIANTINES, POWDERS, etc.

We are Proud of the

PREFERENCE and PRIORITY

given our

IMITATION ESSENTIAL OILS

IMITATION LAVENDER

Three Grades to meet all needs.

Standard	$3.00 lb.
Special	$3.50 lb.
Extra	$4.00 lb.

IMITATION BERGAMOT

Three Grades for all requirements.

Standard	$2.50 lb.
Special	$3.75 lb.
Extra	$5.50 lb.

IMITATION GERANIUM "B"	$4.25 lb.
IMITATION YLANG YLANG	$3.75 lb.
IMITATION CANANGA	$2.25 lb.
IMITATION PATCHOULI	$3.25 lb.
IMITATION VETIVERT	$3.75 lb.

P. R. DREYER INC.

119 WEST 19th STREET

NEW YORK, N. Y.

bottles, first

We don't want to re-design every glass bottle we see. That's not our business. We *make* glass bottles. Primarily and basically our job is production.

Part of our glass packaging service includes provision for design. Our designers can and will design new bottles or jars for new products. In fact, they have planned some of the glass packages that are standouts on the market.

CARR-LOWREY
3-Point Service

creates

1 PRACTICAL
2 ATTRACTIVE
3 ECONOMICAL

glass packages for foods, drugs, cosmetics, household products.

But first of all we're producers. We're here to make bottles and jars as you want them and when you want them. That is our job, and we try to do it well.

Parallel ridges to reflect the light and give sure grip make a bottle for LaCross nail polish that stands out in a highly competitive field.

Carr-Lowrey Glass Co.

Factory and Main Office: BALTIMORE, MD.

New York Office: 500 Fifth Avenue **Chicago Office: 1502 Merchandise Mart**

For Fine Chemicals

SPECIFY HEYDEN

FINE HEYDEN CHEMICALS

Glycerophosphates

The official and non-official compounds of Ortho-Glycerophosphoric Acid in a complete range

CALCIUM GLYCEROPHOSPHATE N. F.
Powder

IRON GLYCEROPHOSPHATE N. F.
Powder

MANGANESE GLYCEROPHOSPHATE N. F.
Powder

MAGNESIUM GLYCEROPHOSPHATE
Powder

POTASSIUM GLYCEROPHOSPHATE
50% and 75% Solutions

SODIUM GLYCEROPHOSPHATE N. F.
Crystals and Powder

SODIUM GLYCEROPHOSPHATE SOLUTION
50% and 75% Solutions

GLYCEROPHOSPHORIC ACID
25% Solution

Write for Current Products List

HEYDEN *Chemical Corporation*

50 UNION SQUARE, NEW YORK

CHICAGO BRANCH: 180 N. WACKER DR.

FACTORIES: FORDS, N. J. • GARFIELD, N. J.

Synfleur

REG. U. S. PAT. OFF.

Bergamol Extra

(Synthetic Oil of Bergamot)

The tremendous success of this product proves that it is one of merit. Bergamol Extra will replace natural oil of Bergamot in any composition—it gives the same "spread" and has a better "lift".

Sample cheerfully furnished upon request.

Trial pounds, **$7.40**

MADE IN U. S. A.

SYNFLEUR SCIENTIFIC LABORATORIES, INC.

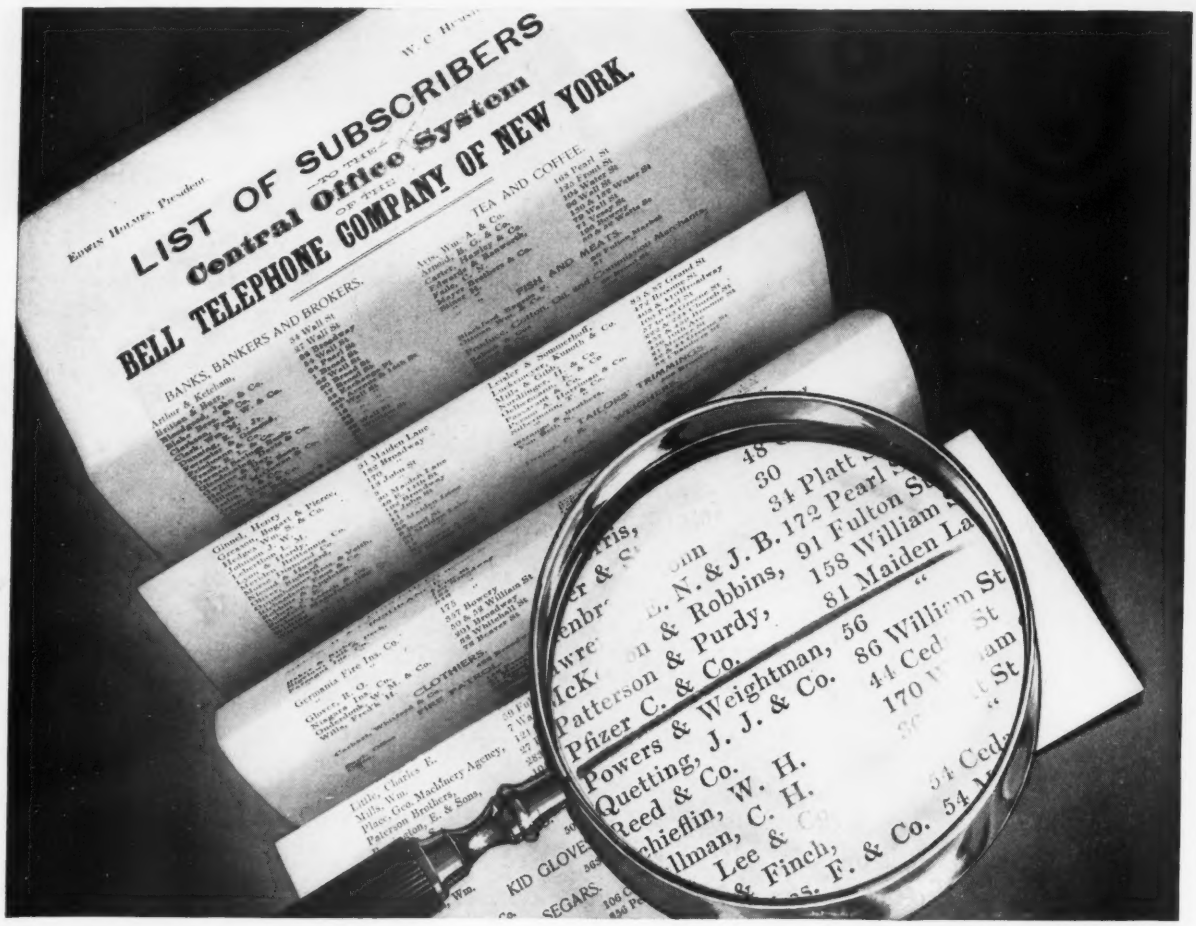
MONTICELLO, NEW YORK, U. S. A.

Atlanta **Detroit** **Chicago** **Mexico, D. F.**
Buenos Aires **Lima** **Havana** **Santiago** **Rio de Janeiro** **Guayaquil**

1878

NEW YORK'S FIRST TELEPHONE DIRECTORY

GOES INTO SERVICE



1878 *Chas. Pfizer & Co., then twenty-nine years old, proved its progressive spirit by being one of the 241 subscribers listed in New York's one-page, earliest telephone directory.*

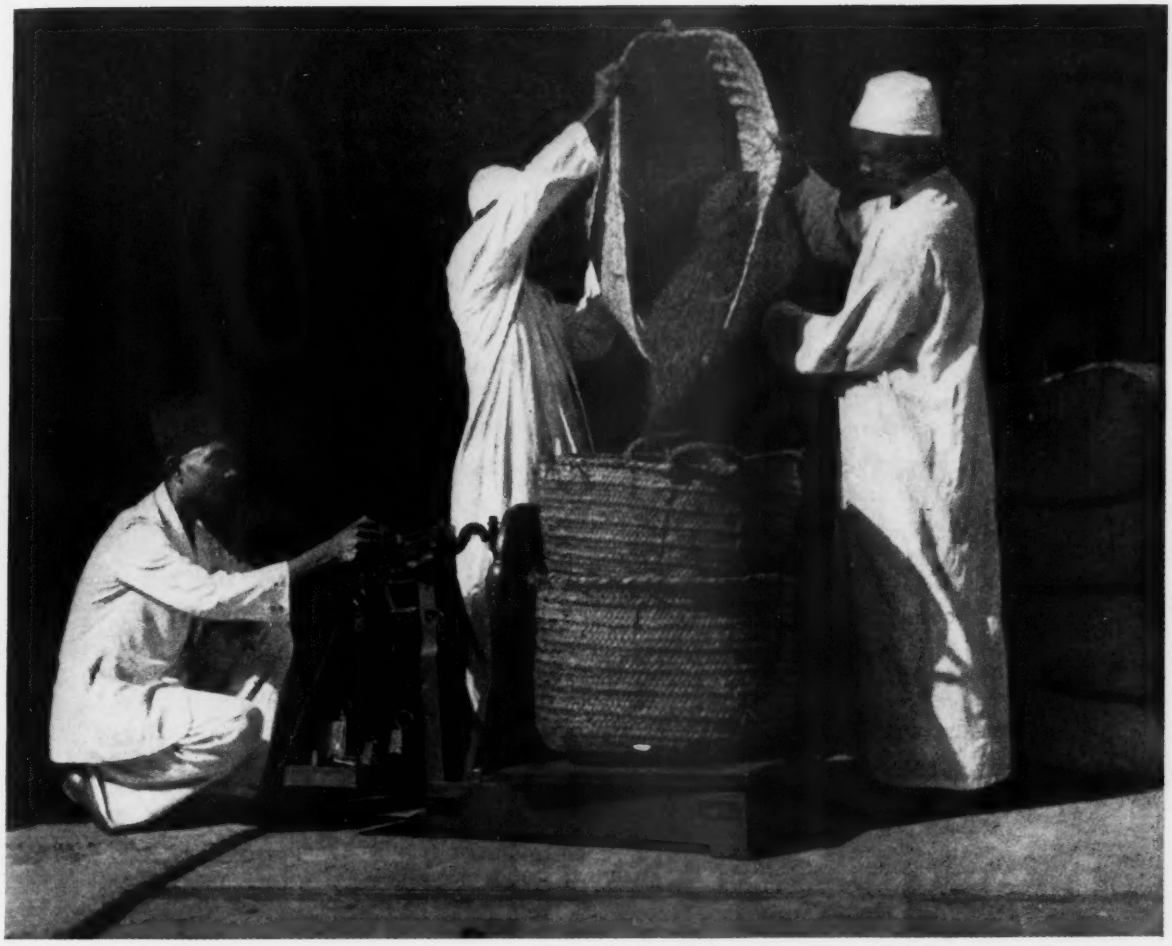
¶ Chas. Pfizer & Co., founded in 1849, engaged first in the refining of santonine. By 1878, the Pfizer line included the leading iodine, mercury and bismuth preparations, boric acid and borax, tartar products and other chemicals, also the refining of camphor. The firm had already established a reputation for quality products, manufactured according to their high standards of purity and uniformity.

¶ Pfizer products have multiplied both in number and volume since 1878. Today they serve a vastly greater market. But Chas. Pfizer & Co. has not changed in its rigid adherence to highest standards of quality. And Pfizer's progressive spirit is more in evidence today than ever, as the Pfizer laboratories constantly evolve new ways to meet the growing needs of modern industry.

CHAS. PFIZER & CO., INC.

81 MAIDEN LANE, NEW YORK, N. Y. • 444 W. GRAND AVE., CHICAGO

MANUFACTURING CHEMISTS SINCE 1849



WEIGHING AT THE SOURCE

Courtesy Clove Growers Assn., Zanzibar

ZANZIBAR!

CLOVES

and

EUGENOL from ZANZIBAR CLOVE OIL

FOR OVER 40 YEARS "G. L." LABELS HAVE GUARANTEED THE QUALITY AND PURITY OF THESE PRODUCTS. MANUFACTURED AT OUR OWN PLANT IN BROOKLYN, N. Y., AND DISTRIBUTED THROUGHOUT THE AMERICAS BY OUR REPRESENTATIVES.

George Lueders & Co.

427 WASHINGTON STREET, NEW YORK, N. Y.

BRANCHES: CHICAGO · SAN FRANCISCO · MONTREAL

REPRESENTATIVES: ST. LOUIS—PHILADELPHIA

Essential Oils ◆ *Aromatic Chemicals* Established 1885 *Perfume Materials* ◆ *Colors*

LET'S LEARN A LESSON!

WHEN THE PALL OF WAR spread its cloak over England, the womenfolk flocked to the colors to do their part. Staunchly standing behind their men, they gave moral as well as practical support. And with their natural feminine desire to put the best face on things, cosmetics were the order of the day. At first there was opposition. Later it was realized that the well-groomed woman possessed more inherent morale and gave more outward evidence of acceptance in the face of odds.

WE IN AMERICA can learn a lesson from this. We are in difficult times fraught with stress and worries. To the cosmetic industry this is a challenge. More and better cosmetics are needed. Conditions are changing, and cosmetics must change with them. *Now is the time to accept this challenge.*

OUR ORGANIZATION can help you more than ever before in this emergency. We are equipped to formulate and manufacture new and timely products for you. We can put that fresh up-to-the-minute twist on your old product. We have experts of many years standing in all phases of cosmetic research, preparation, and manufacture. More than that, we have specialists in Color who are at your service to help you create new shades and colors appropriate to the excitement of today. We can even assist you with your packaging problems which are constantly becoming more difficult.

WE WOULD WELCOME an opportunity to show how our unique and completed service can help you do your part.

Evans Chemetics, Inc.
33 West 46th Street, New York
Telephone Bryant 9-6805

Evans Chemicals Limited
Boreham Wood
Herts, England

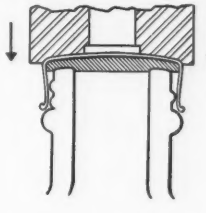
Cosmetic Manufacturers with Unique Research Facilities

"We break our necks to get the product just right. But if it isn't still right when the consumer gets it, we're wasting our time!"

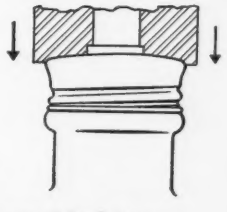
And that's where Packaging Insurance comes in—in the form of the Alseco Rolled-On method of sealing. It ends the risks of leakage and evaporation. It keeps your product just as you made it.

Each seal is tailor-made (see diagrams) to fit its own particular container. The threads are Rolled-On *after* the seal is firmly seated. Thus there *can't be* any misfits to cause trouble for you or your customers.

HOW THE ROLLED-ON METHOD WORKS



Plain-skirted Alseco Seal is uniformly seated. Under stationary top pressure, container lip is imbedded in liner evenly all around.



Then, to hold that seal securely, threads are Rolled-On, using the container's own threads as the pattern. Possibility of leakage or evaporation is reduced to minimum. Alseco Seal stays tight, but opens and recloses easily because it is tailor-made.

Trade Mark Reg. ALSECO SEALS U. S. Pat. Off.

TAILOR-MADE

ALSECO SEALS

ALUMINUM SEAL CO., 1283 THIRD AVE., NEW KENSINGTON, PA.

At your service: 27 years of experience building quality seals and sealing machines.

DEFENSE COMES FIRST

The urgent and rapidly expanded requirements of National Defense have stopped the sale of Aluminum for seals. Therefore, some types of Alseco Seals are now being supplied in metals other than Aluminum.

However, Aluminum production capacity is being greatly increased. When the emergency is past, there will be more Aluminum available for seals than ever before. And you can be sure that the Aluminum Seal Company's research, continuing now as always, will keep Alseco Seals and sealing machines "out in front."

AMERICAN PRODUCED

★ ALKALOIDS ★
★ GLYCOSIDES ★

and Related Plant Principles

from the Laboratories of S. B. Penick & Company

The production of Alkaloids and similar principles of botanical origin, together with their derivatives, constitute a highly specialized branch of chemical manufacturing.

In order to obtain finished products of the highest possible purity, skillful application of polarimetry and spectrophotometry is an essential addition to such tests as are officially prescribed.

However, the most difficult stages of the manufacturing operation are the many complicated steps between the raw material and the crude chemical ready for final purification.

Despite the advances in chemical knowledge, much of this field is still uncharted and there are many pitfalls even for those long practiced in such production.

THE ALKALOIDAL LABORATORY STAFF of S. B. PENICK & COMPANY have the chemical knowledge coupled with the necessary experience for the manufacture of fine quality products.

★ AMERICAN-MADE BY PENICK ★

ALKALOIDS and SALTS

Aconitine
Arecoline Hydrobromide, N.F.
Atropine Alkaloid, U.S.P.
Atropine Sulphate, U.S.P.
Berberine and Salts
Colchicine Salicylate
Colchicine, U.S.P.
Emetine Hydrochloride, U.S.P.
Ephedrine Alkaloid, U.S.P. (Natural) and Salts
Eserine and Salts
Homatropine Hydrobromide, U.S.P.
Hydrastine Alkaloid, U.S.P. and Salts
Hyoscine Hydrobromide, U.S.P.
Hyoscyamine Alkaloid and Salts
Lobeline Sulphate
Pilocarpine Alkaloid and Salts
Sparteine Sulphate, N.F.
Veratrine
Yohimbine Hydrochloride

GLYCOSIDES

Digitalin, N.N.R. (so-called German process)
Digitonin
Gitonin
Salicin, N.F.
Saponin
Strophanthin, U.S.P.

RELATED PLANT PRINCIPLES

Allantoin
Asparagin
Cantharidin
Chrysarobin, U.S.P.
Quassin

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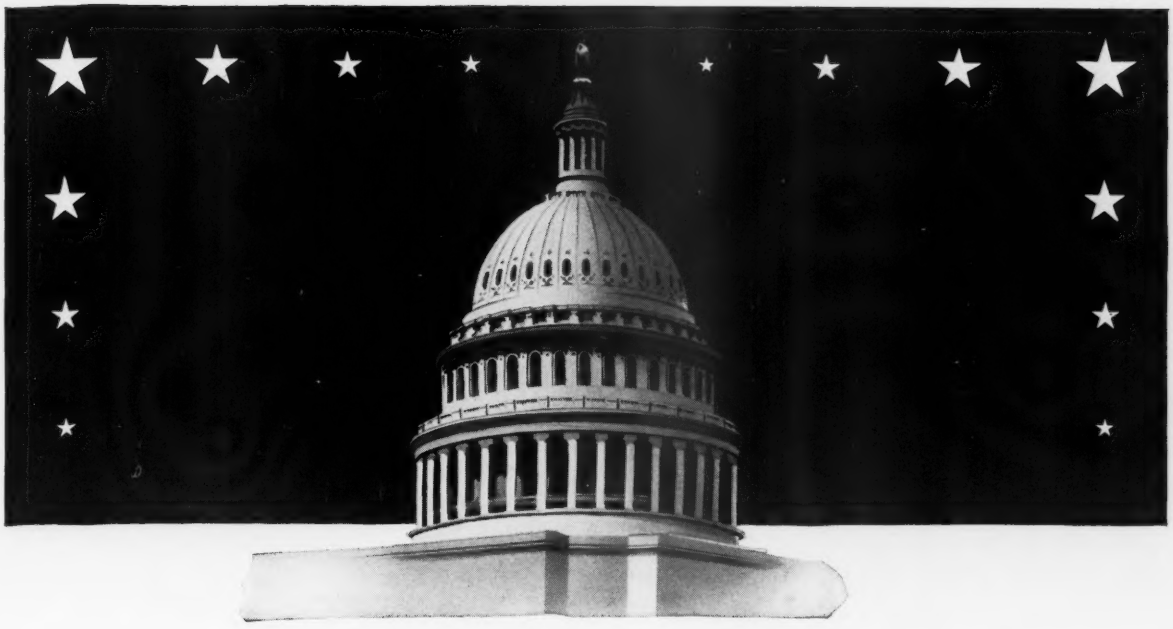

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★ **Every effort is being made by Mallinckrodt to keep supplies moving as promptly and completely as possible to the trade but it is increasingly evident that all of us must proceed, for a while at least, with reduced quantities of certain materials.**

★ **One way that every user of chemicals can help his country and his company to avoid waste and perhaps irreplaceable loss is to make sure that every shipment received is carefully handled and stored, even though for a short time, under conditions that avoid breakage, spoilage, and contamination.**

★ **To help insure instant use when needed in your operations, the Mallinckrodt Chemical Works offers its experience of nearly 75 years in supplying information to help avoid deterioration, etc., caused by improper handling and storage conditions.**

★ **Any user is welcome to this information on any item in our list which covers over 1500 fine chemicals including Iodides, Ethers, Bismuth Salts, Salicylates, Bromides, Mercury Salts, Stearates, Silver Salts, Nutgall derivatives and many others.**

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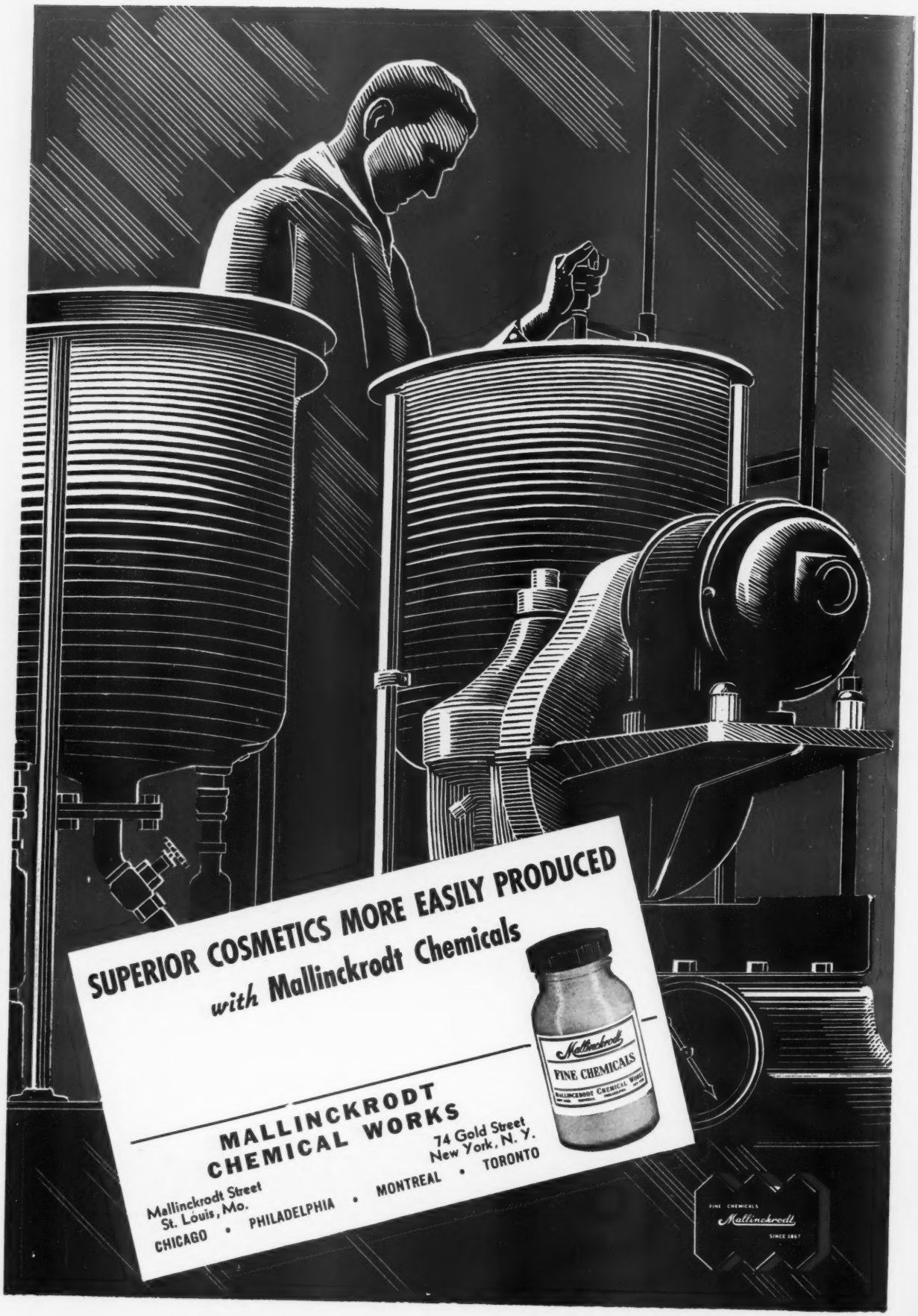
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KEEPING POSTED

Vitamins and the A.M.A.

In an editorial, the Journal of the A. M. A. goes to work on the sale of vitamins by the many companies who are advertising these products and thus broadening their use at the same time that they are reducing the cost to the consumers. The Journal states that "When Lever Brothers, manufacturers of various soaps and other products, recently announced its entrance into the vitamin field, it joined the vitamin gold rush of 1941, making the California trek of 1848 pale by comparison. There are lush profits in the vitamin business."

The Journal comments upon Vick's acquirement of Vitamins Plus, and takes to task some old advertisements of Vitamins Plus as well as come current ones of Lever Brothers Vimms. Then the Journal comments that man cannot function efficiently upon tablets and food concentrates. That "foods common to the American dietary properly selected will contribute everything that foods can give to the maintenance of good health. Vitamins are merely important food constituents that have been isolated, concentrated or synthetized. If daily consumption of a good serving of ham, a green vegetable, a glass of milk, a slice of brown bread, an orange and the other constituents of a suitable diet will not maintain the body in a satisfactory state of nutrition, a medical study is needed more than a shot with a shotgun pill of vitamins."

Its the same old story. The A. M. A. thinks that the doctors should administer everything that anybody needs to keep them feeling well. The A. M. A. does not tell how everyone is to get the balanced meal described or anything like it. And the A. M. A. does not seem to appreciate or to care about the fact that the prices of vitamin products are being down to levels at which the average individual can buy and use them regularly and thus offset the fact that he cannot get all the various kinds of food that he would have to have at every meal to keep him from developing vitamin deficiencies.

Beware of Sources

Some very sad experiences are being told within the industry concerning purchases of materials, particularly imported perfume materials, from individuals who are new in the picture and who have no record of responsibility. Glamorous stories are told when these deals are made—new and unexpected countries of origin, or a tale of political intrigue to obtain the goods that would make E. Phillips Oppenheim reel.

Things like this are possible only because of the high prices and the scarcity of materials purchased this way. But it is a good rule to apply a big question mark to everyone not an established supplier and to check and double check on everything offered this way no matter how badly one may need the goods.

Vanilla Beans Released

One of the really good jobs worked out by an association is the release of a large quantity of vanilla beans from Madagascar. Since this island is French and was under blockade by the British, the Vanilla Bean Association had to work long and hard with government agencies to make this release of the blockade possible. Under the plan each member of the association receives a quota allotment of the cargo. Of course each member has to finance his own purchase of beans. This has resulted in a certain consumer, who had previously been delighted to be able to get part of his needs of vanilla extract based upon the higher prices of such beans as were available, wiring a cancellation of the undelivered part of his contract commitments.

But in this case the seller had no intention of being let out on commitments made for this buyer and had the courage to ship the goods. We wonder why this buyer does not realize that this war appears to be far from over as yet and that such buying tactics had better stay in a bomb-proof shelter for a while. However, the time may be coming when this type of action on the part of

buyers will have to be faced as a serious problem by suppliers who make commitments at the urgent request of buyers who take a contract only for their protection.

We hear cases where a shortage of substitutes is causing people to use natural materials. Methyl salicylate and oil of sweet birch, for example.

Health Supplies

Twelve additions have been made to the list of health supplies for the manufacture of which an A-10 preference rating is available. The complete list, which was issued over the name of Donald M. Nelson, Director of Priorities, October 23, now contains twenty-five classifications. The classifications added to the old list are marked with an asterisk. These classifications apply to medical, surgical, dental, and veterinarian uses.

*1. Acoustic aids.
2. Anaesthesia apparatus and supplies.
*3. Atomizers (medical use only).
4. Biologicals, anti-toxins, serums, sterile ampoules and intravenous solutions.
5. Clinical thermometers.
6. Diagnostic equipment and supplies.
*7. Hospital carts, racks and charts.
8. Hypodermic syringes and needles.
*9. Infant incubators.
10. Instruments.
*11. Invalid chairs, walkers and crutches.
12. Laboratory equipment and supplies.
13. Medicinal chemicals (limited to medical use only).
14. Operating room supplies and equipment.
*15. Ophthalmic products and instruments.
*16. Physical therapy equipment (limited to medical use only).
*17. Respirators, resuscitators and iron lungs.
18. Rubber hospital sundries.
*19. Sick room furniture, equipment and supplies.
*20. Splints and fracture equipment.
21. Sterilizers, blanket and solution warmers.
22. Surgical dressings and adhesive plasters.
*23. Surgical and orthopaedic appliances (including artificial limbs and arms).
*24. Sutures and suture needles.
25. X-Ray equipment and supplies.

Mineral Oil Attacked

The A. M. A. lashes out against mineral oil by publishing in the October 18th issue of its Journal an article by Dr. James W. Morgan of San Francisco, entitled "The Harmful Effects of Mineral Oil (Liquid Petrolatum) Purgatives." Dr. Morgan does not pull any punches in this article, but in reading it one cannot tell whether there is any controlled scientific evidence to back up the statements made, or whether these statements are merely based upon opinion evidence. This article has resulted in the Food and Drug Administration starting a search of the literature to ascertain whether or not there is evidence in the literature to support Dr. Morgan's views. The article in question will have to be taken seriously by this industry and evidence offered in refutation.

Raising the Ceiling

The alcohol situation continues to give members of this industry the jitters. The government is trying to get all the alcohol it needs and in order to supply both the government and industry, alcohol production will have to be approximately doubled. That is, a capacity of some 200,000,000 million wine gallons of alcohol is necessary from the present outlook. Whether these requirements will be boosted at a later date is anyone's guess.

In order to keep alcohol under control during the shortage, the OPA has placed a ceiling on prices. However, it might be necessary to use corn to boost the production, and alcohol made from corn costs more than alcohol made from molasses or made from petroleum gases. Meanwhile the Cubans are said to be waiting for this country to ask for greatly increased quantities of high-test molasses which will be made directly from the cane,—the Cubans feel that this government will be willing to pay a nice high price for this molasses since it is necessary for defense.

Furthermore, the present ceiling is said to figure back to a value of six cents for molasses, and this is said by sugar people to be impossible when the demand is for more molasses than is available in Cuba without using cane for molasses production. Therefore, the ceiling will doubtless have to be raised. One alcohol manufacturer in this country, who makes his alcohol from sugar and therefore has costs above the average, has been able to get the OPA to allow him to charge five cents a gallon above the prices set by the ceiling. This company is required to file each month a detailed profit and loss statement and balance sheet, a detailed statement of the cost of alcohol produced in each month, and a certified financial statement at the close of the year.

Still another manufacturer has been granted permission to produce nearly four million gallons of high-cost alcohol from raw sugar for which he is allowed to charge a price of 49½ cents per gallon in tank cars against a ceiling price of 24½ cents. The cost of the raw sugar is placed at $2.30 cents per hundred pounds.

The action taken in allowing the prices to be raised indicates that the government is willing to use every means to prevent shortages, and also that manufacturers of necessary materials are not going to be forced to operate at a loss. It is encouraging to this industry to see clear indications that it will be able to get the alcohol it needs after the temporary tightness of the market is eased by such action.

Ceiling on Glycerine

A price ceiling has been placed on glycerine by OPA effective November 10. The schedule establishes base maximum prices of 11½ cents per pound for crude glycerine, and 18 cents per pound for refined glycerine. These prices compare with 18 cents per pound for crude glycerine, and 21½ cents per pound now quoted by refiners for fourth quarter delivery.

There are now seven chemicals over which price ceilings have set by the OPA. These are: Acetic acid, acetone, alcohol, butanol, formaldehyde, glycerine, and methanol.

With reference to this latest price ceiling, Price Administrator Leon Henderson says:

"From 1938 until the beginning of this year crude glycerine prices remained practically unchanged at 7¾ cents per pound. Soon thereafter the price jumped to 9 cents per pound, and before the summer was over had risen another four cents. This new price, which was not reasonable in itself, was raised by another five cents per pound to 18 cents per pound on September 15.

"Thus we have one of industry's basic chemicals, which enjoyed almost complete price stability for three years, rising by nearly 150 per cent. in about nine months. As to refined glycerine, prices which ranged from 12½ cents to 14½ cents over a twenty-eight month period to last April have since soared to 21½ cents per pound and are threatening to go even higher."

Production of glycerine for this year is estimated at 200,000,000. About fifty per cent. of this will be used in production of dynamite and other explosives, synthetic resins, transparent cellulose wrappings, and in processing tobacco. Many additional millions of pounds will be used in manufacture of drugs, cosmetics, and printing inks. The textile, chemical, and paper industries will use about 5,000,000 pounds each, while more than 15,000,000 pounds will be used by the food industry.

Paper Curtailment

Manufacturers are wondering what form the order to curtail paper requirements is going to take. There are indications that a horizontal cut of twenty-five per cent. in the amount of paper used by manufacturers in this industry is to be ordered. This cut can be effected by manufacturers cutting the amount and size of the labels, cartons, shipping containers that they use, or it can be effected by a cut in the weight of the various forms of paper that they use, or it can be effected by any combination of all three of these factors. One manufacturer that we have heard of has had samples of new cartons in lighter weights made up so that he knows what he might be up against if this order becomes effective. He is said to be satisfied with all but one of his many packages.

Beeswax Standard

The Ninth Toilet Goods Association Standard, issued October 21, is for Beeswax. Beeswax is defined as the purified honeycomb of the bee (*Apis Mellifera, Linne*) free from all other waxes. Color of natural beeswax is yellow, and of bleached beeswax it is light translucent cream white, not darker than 1½ Y in 2 inch cell using the Lovibond tintometer. The odor is faint, honeylike, and no disagreeable odor should develop after beating to 70 °C. for 30 minutes. The taste is faint, balsamic, agreeable, Melting point is 62° to 65° C. by U. S. P. method. Specific gravity is 0.950 to 0.960 by U. S. P. method. Refractive index is 1.440 to 1.445 by Abbe refractometer. Saponification value is 89 to 103 by U. S. P. method. Acid value 17 to 24 by U. S. P. method. Ester value 72 to 79 by U. S. P. method. Ratio number 3.3 to 4 by British Pharmacopoeia method. Iodine value 8 to 11 by Methods of Analysis of Association of Official Agricultural Chemists 5th Edition. Rancidity must meet requirements of T. G. A. Method No. 8: a small piece of wax exposed to sun in closed container for two days develops no odor of rancidity. Fracture at 23.89° C. is dull, granular, and slightly flakily. Added fats, Japan wax, and rosin, of which there should be none, should be tested for by the U. S. P. methods.

O.P.M. Field Offices

For those interested in obtaining information regarding priorities, we give a list of the Priority Division of the OPM offices: 19 Congress St., Boston, Mass.; 925 Chestnut St., Philadelphia, Pa.; 25 Broad St., New York City; 411 Locust St., St. Louis, Mo.; 164 W. Jackson Blvd., Chicago, Ill.; E. 6th St. & Superior Ave., Cleveland, Ohio; U. S. Nat'l Bank Bldg., Denver, Colo.; Grant St. & Ogle Way, Pittsburgh, Pa.; Ward & Akard St., Dallas, Texas; 160 Fort St., W., Detroit, Mich.; 104 Marietta St., Atlanta, Ga.; 345-4th St., Cincinnati, Ohio; 400 Sansome St., San Francisco, Calif.; 960 Stuart Bldg., Seattle, Wash.; Federal Res. Bank Bldg., Kansas City, Mo.; 1151 S. Broadway, Los Angeles, Calif.; Circle Tower Bldg., Indianapolis, Ind.; Rand Tower Bldg., Minneapolis, Minn.; Bedell Bldg., Portland, Oregon; Utah Oil Bldg., Salt Lake City, Utah; Federal Reserve Bank Bldg., Houston, Texas; M & T Bank Bldg., Buffalo, N. Y.; Hildebrandt Bldg., Jacksonville, Fla.; Liberty Life Bldg., Charlotte, N. C.; Baltimore Trust Bldg., Baltimore, Md.; Federal Res. Bank Bldg., Richmond, Va.; 415 W. French Place, San Antonio, Texas; Sterrick Bldg., Memphis, Tenn.; Todd Bldg., Louisville, Ky.; 1015 Stohlman Bldg., Nashville, Tenn.; Federal Reserve Bank Bldg., Helena, Mont.; Knoxville, Tenn.; New Orleans, La.; Federal Reserve Bank Bldg., Oklahoma City, Okla.

CIVILIAN MORALE AND COSMETICS

ARE we entering a period when cosmetics and perfumes must prove their right to live, prove their essential necessity to millions of women, particularly at a time which may be one of great emotional stress? Many intelligent people in the industry believe this test will come—perhaps next year. Some Washington officials in their talks with members of the industry have inferred that such a test ought to come.

This industry has already been seriously affected by priorities essential to manufacturing, to the products themselves, to packaging and to shipping containers, priorities not only to the Army, Navy and Air Force, not only to a vast diversified group of products needed for defense or established in this category, but priorities to Great Britain, her colonies and dominions, to Russia and China, priorities to the exiled governments of Norway, Netherlands, etc., priorities to all the countries of South and Central America both for defense and civilian morale.

This is no exaggeration! Read the priorities list for that essential material for our industry—alcohol. This is one part of the threat to cosmetics and perfumes. We also import products essential for this industry. Cargo space from Africa, from the East, is at a premium. Political obstacles hinder or prevent trade with such important sources as Vichy-held Madagascar. The blockade has successfully isolated us from many needed supplies. Are the products so desperately needed by this industry to have no standing in court because some officials cynically or carelessly assume that they have little value in a country preparing for war?

We think these officials are making the greatest mistake of their lives in under-estimating the importance of cosmetics and perfumes to the American women. It is not a question of patriotism, or sacrifice to be made. No one is needed to teach *that* to any American woman.

If the choice must be made between lipsticks and bombers, no American woman would hesitate to make this sacrifice. But there are no signs here, and there are no signs in England after an all-out war of two years that any such sacrifice is necessary. What we are dealing with here in all of the products essential to this industry is not a 100 per cent. requirement for American defense but an attitude by some officials that in the amount reserved for private industry and civilian use, cosmetics and perfumes are not so important.

The really amazing thing about it is the fact that this attitude persists in spite of all experience to the contrary. Hitler tried to abolish the use of cosmetics in Germany, without success. Britain earlier in the war tried to brush them aside as non-essentials but was forced to reconsider. The fact is that cosmetics do give feminine spirits a lift and that national morale is founded upon a cornerstone of feminine courage and inspiration. It is axiomatic that women do not want to look frowsy and that men do not want them to look anything but smart, attractive and well-groomed. During trying times, this is more than ever true.

Alexander Woollcott was only one of the few travelers flying between here and England in these days who reported that his friends asked that he bring them lipsticks above everything else. Another report from England in September indicates that shortages of cosmetics cause near riots in some towns. The report reads, "According to a local press correspondent beauty trade preparations are so scarce in East Lancashire towns that any offer at once causes large queues to collect. At Blackburn, these queues are even greater than those which assemble outside confectionery and tobacco stores and the local authority are threatening stern action. The correspondent saw nearly 100 women clamoring for supplies at a stall on Blackburn market on August 23, and at one of the following week's markets almost as many gathered 'in expectation' of being satisfied. A similar experience is being encountered in other East Lancashire towns—especially those with large markets—and dealers are now rationing supplies among customers."

The British Board of Trade, according to radio and newspaper accounts, is taking steps to smash a widespread system of smuggling and under-the-counter

Cosmetic manufacturers are facing difficulties in obtaining materials. The industry may be forced to justify its existence. The experience of other nations now at war indicate clearly that women must have cosmetics. Read this article and know why cosmetics are vital to defense.

peddling of substitute cosmetics which has arisen in England due to these limited supplies. The cosmetic industry's gigantic "black market" is supplied by undercover bootleg manufacturers of questionable ethics and rather less knowledge. They are said to be using dangerous dyes, unrefined and impure greases and even cooking fats and other ingredients in creating their imitation products. Some women have gone so far as to use shoe polish to decorate their eyebrows and bent paper clips for hairpins. Billiard parlors have reported a surprising disappearance of "cue chalk", some of it pink, and it was discovered the girls were using it for rouge. Medicinal mineral oil has been used frequently as "cold cream" for removing make-up. The Board of Trade reported mild epidemics of skin diseases from using substitute cosmetics and it used that as an argument in urging the women to cooperate in driving the beauty bootleggers to cover. However, it was admitted it was more or less resigned to the fact that the market cannot be completely stamped out. At the same time it is estimated that this illicit trade is costing the country about five million dollars a year in lost revenue from purchase tax and nearly double in evaded income tax.

The record to this point is replete with case histories emphasizing again the importance of cosmetics to morale under actual wartime experiences. For instance, last June six American Red Cross Nurses survived the torpedoing of the Maasdam en route to London. Rescued by a Canadian freighter and taken to London via Iceland, the nurses had only their travel-stained clothes as their sole possessions. When high tribute was paid to their poise and signal bravery in rendering first aid after the catastrophe, one of them said: "Our relatives and friends needn't feel any anxiety about us. We'll all look much better when we've had time to get some lipstick, rouge, and powder. Next time I'm torpedoed, I'll remember they're the first things necessary to save."

That nurse expressed the general feminine determination, dating from Eve in Eden, to look as lovely as possible despite untoward circumstances. Failure to recognize that trait has caused British officials many headaches in converting peacetime economy to a wartime basis largely controlled by women.

During the initial organization of women's service groups in England, for example, make-up was banned rigidly. During the first few weeks, officials spent much time in ordering sullen enrollees to "wipe off the lipstick." So defiantly persistent were the women, however, that, at the end of two months, the ban was lifted. Now lipstick, rouge, powder, and even eye-shadow, and mascara are permitted. Of course, discreet application and shades are requested. Nail polish is permissible also—although the more brilliant shades are taboo.

The importance of make-up to morale was recognized also when designers created shelter attire complete with make-up pocket. A brave, lipsticked mouth steadies a woman through all sorts of major catastrophes like air raids and national emergencies.

England also ran into trouble attempting to recruit farm workers from among the women of the country. At present the women are avoiding the agricultural service as if it were smallpox. Not that they were afraid of the work or of soiling their hands but because of the dull uniform of olive drab pants and workshirt.

On the other hand, England's youngest and prettiest Major General went into her new job recognizing the importance of good grooming to the feminine spirit. She's thirty-three-year old Jean Knox, mother and ex-housewife, who's just taken over control of the 50,000 women in ATS (Auxiliary Territorial Service). By Christmas, she hopes to triple the number and by next year to have 200,000 women for such services as cooking, communication, transportation, and secretarial duties. How's lipsticked, Major General Knox going to increase membership fourfold? Well, chief objection to enrollment in ATS has been that enrollees in WRNS (Women's Royal Naval Service), and WAAF (Women's Auxiliary Air Force), had more dates because their

(*Continued on page 518*)

RESEARCH REPORT on the Consumer, the Cosmetic Industry, and Rayon Fabrics

By EDYTHE BRIGHT, Luxor, Ltd., Chicago

ALERT manufacturers admit that success or failure of their business depends on consumer acceptance and consumer demand. This has been true since the early days of the machine age in the 19th century, when the manufacturer first began to produce goods outside of the home. Therefore, the maintenance of consumer good-will is one of the major tenets of our organization.

Every complaint received at our offices is carefully investigated by a responsible executive whose orders are to see it through to a satisfactory conclusion. The report that follows originated through no fault of ours but because a Luxor product was involved, we have worked tirelessly in an effort to help settle the problem. It could happen to anyone who manufactures colognes or perfumes. Because this is true, we have been asked to make the facts known to the industry.

June 7th, 1941—A Chicago woman accidentally spilled one of our colognes down the front of a new rayon jersey print dress. The colors which came in direct contact with the cologne all ran into each other, completely ruining the dress.

June 10—In a letter written us on this date the consumer said—"It does seem to me that a product manufactured with so fine a reputation as Luxor Limited and a product which will come in contact with clothing should be submitted to a testing laboratory and not put on the market without a label of warning that the product will be injurious to any color with which it may come in contact." She went on to say—"I am a member of the Housewives' League, and we of the League appreciate informative labels as to the quality of articles purchased for household use and the care to be taken of them in order that we may discriminate against inferior products."

June 11—Immediately on receipt of the letter, our general manager, the head of our technical department and the writer met for a conference. We were extremely regretful that the accident had occurred and discussed what could be done to rectify the bad feeling created. Our first step was to ask the laboratory to check the effect of our own and competitive colognes on various types of rayon fabrics.

June 17—The laboratory submitted a report in which it was explained that rayon is a scientifically manufactured fibre and that certain types of this material are susceptible to attack by various solvents. The report mentioned that all of the 4 processes (viscose, acetate, cuprammonium, nitro-cellulose) used in production of rayon fabrics employ the same principle, i.e. manufacturing a fabric which is a chemical product whose basic raw material is cellulose.

We were informed that approximately 75 per cent. of the total rayon produced in this country is by the viscose process, approximately 24 per cent. is by the acetate process, and only a very small proportion utilize the cuprammonium process. No rayon utilizing the nitro-cellulose procedure has been produced since June 1934.

The report further developed the point that of the two popular types of rayon fabric, the acetate is most readily attacked by certain organic solvents which cause the fibres to swell and even to dissolve. Solvents mentioned included acetone, alcohol, amyl acetate, ethyl acetate, chloroform. It was warned that every care should be exercised to avoid organic solvents coming in contact with acetate type rayons. It was further said that because colognes, toilet waters, and perfumes contain essential oils, aromatic chemicals and alcohol, they will attack this type of rayon when applied to it.

Our chemists took the attitude that any cologne which by its formula includes the combination of essential oils (definitely active solvents in themselves), aromatic chemicals, and alcohol, would have the same effect when put in direct contact with rayon fabrics.

By this time, our check with the testing laboratories of one of Chicago's largest department stores had de-

BLACK BOX FROM FREDERIC LEWIS

veloped the point that rayon jersey prints are made by the acetate process. We will therefore omit the findings on the reaction of cologne to viscose processed rayon and confine ourselves to what happened when the acetate materials were tested.

Samples of acetate rayon were put in test tubes containing:

a—acetone, which dissolved the fabric completely;

b—straight alcohol, which removed practically all the

c—color and caused the material to swell slightly: the same cologne which had caused the accident, which again destroyed the color and caused a portion of the fabric to partially disintegrate (due no doubt to the additional ingredients in the complete formula);

d—competitive cologne selling at the same retail unit price; color destroyed; fabric still whole (evidently this formula does not contain the concentration of essential oils present in the Luxor product and therefore was less destructive);

e—competitive cologne selling at a higher retail unit price, which destroyed color and again cause fabric to swell slightly.

June 18—We had now concluded that our proving the fact that any cologne would injure an acetate rayon fabric must be demonstrated to the consumer who had made the complaint. The writer held a long discussion on the entire subject with the consumer.

The consumer readily admitted the proof that the destruction of her dress could not be blamed on the fact that Luxor cologne exclusively contained injurious ingredients. She acknowledged it could happen with any other manufacturer's product. But she still insisted that it was the duty of the cologne manufacturer to put a label warning about the effect of the product on rayon fabrics.

It was then pointed out that the real responsibility for such a label lies with the fabric manufacturer because the possible danger to rayon fabrics was present in so many other forms (nail polish remover, alcoholic beverages, hair tonics, etc.) It was also pointed out that while rayon is a most popular ready-to-wear fabric, women do wear cotton, linen, wool, and silk, that a label on a cologne bottle would also be reaching the many thousands who wear these other fabrics.

Then too, the consumer was reminded that what had happened to her had been an accident. The point that the beauty press has been advising the consumer to apply cologne and perfume directly to the body and not to her clothes was mentioned.

The consumer took exception to the point that few women apply cologne or perfume directly to their clothes. Earlier in the discussion the writer had told her of the constant effort made to develop Luxor products with the active co-operation of the consumer. Our national consumer jury and its fine helpful work had been explained. The writer was asked if we would put the question to the jury so we could see for ourselves just what proportion of women using cologne do apply it directly to clothes. This was agreed.

By this time the consumer agreed with the thinking that informative labelling regarding the direct contact of solvents should be a matter for the rayon people to develop. The writer promised to take this matter up with responsible people in the rayon fabric industry and the interview closed on a most friendly note.

June 19—We sent a questionnaire to 55 consumer jury heads residing in all parts of the country. We

asked whether or not they used cologne, in what seasons, if they used an atomizer, if they applied it directly to their skin, if they applied it directly to their clothes. We asked that they make the same check with 10 other women in their communities.

The same day we mailed the consumer jury questionnaires, we wrote to the Fabric Editor of the leading trade newspaper in the ready-to-wear field, outlining our story to date and asking for his help. We also wrote to one of the largest rayon fabric producers, telling him what had happened and requesting aid.

June 25—We received a reply to our letter written to the trade newspaper and were advised to contact the Rayon Producers' Group office in New York, which we did by mail.

June 30—We received a reply to our letter written to the executive of the rayon fabric firm. He said he did not know of any steps taken by the rayon industry to educate the consumer about the danger of solvents. He assumed the reason is that in nearly all cases the application of a solvent by a consumer would be the result of an accident, that in 12 years' experience he had never heard of a specific case. He mentioned that dry cleaners who use solvents professionally are thoroughly acquainted with the handling of acetate rayon. He concluded by saying in the situation the writer referred to, the alcohol seems to have attacked the dyestuff.

August 12—When the results of the consumer jury questionnaires were recapitulated, it was learned that women do apply cologne directly to their clothes and not by accident. Actually 23 per cent. of returns reflecting national practice, admitted applying cologne directly to the clothes. Now we were sure this was a problem for the rayon fabric people to solve. We wrote New York and secured an appointment with the editor of the trade newspaper and the secretary of the Yarn Producers' Group.

August 25—At this meeting it was agreed that a product like cologne could very surely ruin a dress, especially when an excessive amount would come in direct contact as had been the case. When the writer had examined the consumer's dress, it was evident that the fabric structure itself had stood up. What had been destroyed was the color.

These experts told the writer the fault should be blamed on the converter. They explained about the many types of dyes used in finishing rayon fabrics. They mentioned that the dye in the damaged dress must have been one of the spirit soluble group. The writer then asked if it wasn't the responsibility of those firms producing such finished materials to furnish the dress manufacturer with consumer labels which would warn about the bad effects that would be experienced if the garment should come in contact with active solvents.

The opinion was expressed that the conscientitous person would consider such to be a moral responsibility. It was also said under less trying times than the present, the possibility of such co-operation would be much more likely. They did promise to use their good offices with the dye people to see what could be arranged.

August 27—The writer had been successful in locating the manufacturer of the consumer's dress. After reviewing the matter with him, he reported that he personally could not afford the expense of providing labels on acetate rayon garments dyed with spirit soluble dyes. He said further that the law only requires his labelling garments containing wool. He did promise to take the matter up with the finishers.

August 28—The writer discussed the entire matter with a representative of the Toilet Goods' Association. Since it is a problem which involves every perfume and cologne manufacturer, the Association expressed interest at the work to date and requested a further report on subsequent developments.

The writer also reviewed the case with several editors writing beauty articles for consumer magazines. They were amazed to learn such a large percentage of cologne users do apply cologne directly to fabrics and promised to help the cause by treating the matter editorially.

One of the beauty editors interviewed is associated with a publication which maintains a nationally known institute where research in the interests of the consumer is constantly conducted. She was instrumental in bringing the writer to one of the members of the textile laboratory. These people were immediately interested in the problem and promised to conduct research on the effects of all solvents on all types of rayon fabrics. The results will be brought not only to the attention of the consumer, but also to the attention of the rayon fabric industry.

September 3—The writer again contacted the consumer who had made the complaint and reported findings to date. The consumer was delighted with the work that had been done. She brought the matter to the attention of the head of the Housewives' League. The result was that the writer was invited to address the members of the league.

September 10th—The writer again approached the large rayon fabric producer, acquainting them with findings to date. In their reply they said they were interested but as far as giving information of this type in fabric labelling, they feel it could hardly be done at this time. For there would result the demand for information as to the effects of various other things on rayon and "you just can't put everything on one small label."

September 22—The executive of the large rayon fabric producer discussed our problem with one of the

(Continued on page 519)

THE NAILS

By M. A. LESSER

THERE is no question but that the chief function of the nails is to protect the tips of the fingers and toes from injury. The nails, particularly the fingernails, are also important weapons of offense and defense, but such usage is more or less obsolete. With a large number of people, however, the nails are looked upon as natural adjunct ornaments to be shaped, colored, or otherwise decorated for beauty's sake.

What ever the interpretation of its function, the nail, as a modified form of epidermis, is an integral part of the body and primarily must be considered on this basis. The healthy nail is a clear, smooth, flexible, translucent, horny plate that is curved from side to side, and with a slight curvature on the long axis.

Structurally, the nail plate consists, first, of the nail root, which, fitting behind in a furrow of the dermis, is not visible. Next is the nail body, resting upon the epidermal layer known as the hyponychium. Finally, there is the free edge; the unattached portion extending beyond the nail bed. The lighter area at the base of the nail, known as the lunula or moon, owes its whiter appearance in part to the fact that the nail bed in this area is less vascular than that under the rest of the nail body, and partly to the fact that this portion is more opaque.[1] Partly covering the lunula is a special membrane called the eponychyium, better known to the public as the "cuticle."

The nail plate, however, is entirely without blood vessels or nerves, and depends for its nourishment and growth upon the matrix. Actually, the matrix is the most important part of the nail, and consists of the portion of the corium on which the nail is formed. As Silver and Chiego[2] put it: "The nail plate takes its origin from the matrix and is correspondingly larger and stronger as the matrix is stronger." In a recent article, Mogull[3] stated that the nail plate and the nail bed grow forward from the matrix together. As proof of this, he observes that a mark made on a nail bed after surgical removal grows out ahead of the nail instead of being covered by it.

Injury to the nail body alone will eventually disappear as the nail grows out toward the free edge, provided no injury has been sustained by the matrix. Permanent injury to the matrix through trauma, disease or infection results in permanent injury to the nail. Where the matrix has been destroyed, the nail will not grow again.

A full nail growth, from matrix to free edge, occurs in from 130 to 160 days,[3] or in from four to five months. Goodman[4] estimates that the average nail growth is about 1/32 inch per week. In other words, it requires approximately eight months for the nails to grow one inch. Normal nail growth also varies according to the finger, to the age, to the season and to the sex. Nails grow faster on fingers than on toes, grow faster in children than in adults and grow faster in summer than in winter.

Like the hair, another specialized epidermal structure, the nails are composed chiefly of keratin, an albuminoid characterized by its relative resistance to acids and alkalies. According to Schwartz and Tulipan[5] the nails are composed of closely packed keratitic cells which are believed by many authorities to contain a substance called "onychin." This substance is highly resistant to many chemicals, but can be destroyed by strong acids and alkalies.

Nail keratin is also characterized by its high content of the sulfur-containing amino acid, cystine. It has been shown that the sulfur content of the nails, ordinarily averaging 3.2 per cent., is almost entirely bound up with this cystine.[6]

Contrary to general belief, the finger nails contain only a small proportion of fatty materials. According to one report,[2] finger nails contain from 0.15 to 0.76 per cent. of fat, nails of infants however, contain 1.38 per cent. The moisture content varies between 7 and 12 per cent. The nails also contain some calcium phosphate, carbonates and small amounts of arsenic.[3] Although the chemical composition of the normal nail is fairly constant, this composition may be altered as a result of general and local affections.

The nails, like other normal organs, respond promptly to changes in general health. Low[7] points out that when all the nails of the hands and feet show the same alterations, it may be presumed—in the absence of any adjacent skin inflammation—that some systemic condition acting through the circulation has altered them in color, thickness, or rate of growth. When only some of the nails are affected, while others remain quite normal, a local cause should be sought, such as injury, an infection of the nail itself (e.g. ringworm) or an inflammation or growth affecting the skin or deeper tissues round the nails.

Pardo-Castello,[8] in his authoritative text, "Diseases of the Nails" says that affections of the nails are very common. His statistical evidence offers quite impressive proof of this statement, and is borne out by other workers in this field. "To understand the lesions of the nail plate and of the nail bed," he writes, "it is necessary to remember that both the plate and bed of the nail grow from a common source, the nail matrix. When the matrix is affected, either the plate alone, or both the plate and bed suffer."

In the opinion of Pardo-Castello, affections of the nails may be grouped under four headings: (a) Affections peculiar to the nails, (b) Onychodystrophies, (c) Nail manifestations of dermatoses and of systemic disease, and (d) Congenital affections of the nails. It is obviously impossible, nor is it desirable, to discuss even a large proportion of the abnormal conditions of the nails, but on the basis of the above classification, some of the most important and more common ailments should receive at least brief mention.

Among the more important affections peculiar to the nails are paronychia and onychia. Although the two terms are often considered synonymous, Pardo-Castello defines the first as an inflammation of the tissues surrounding the nails, and it is often due to direct infection by staphylococci, streptococci and colon bacilli. Schwartz and Tulipan say that this condition often occurs among those who handle liquid or powdered chemicals, including such workers as bakers, photographers, nurses, chemists, laboratory technicians, perfumers, engravers, tanners, silversmiths, dyers, etchers, auto mechanics and others. Lime and cement may also cause this condition and wool workers also are affected.

Authorities agree that the most frequent cause of onychia is trauma (a wound or injury) which causes inflammation of the matrix with subsequent loss of the nail. However, if the matrix is not permanently injured, the nail will grow again, but, if the matrix becomes chronically inflammed, the resulting nail plate is usually discolored, distorted, and cracked.

However, both of these conditions are usually coexistant and generally, onychia is the result of a previous paronychia. Both of these conditions may be caused by cuts, blows and crushing, or from the introduction of a hard foreign body under the nail, such as thorns, wood splinters, glass, or from the presence of a parasite.

The next group of affections under this first classification are the onychomycoses, infections of the nail due to fungi, molds or yeasts. Such conditions were formerly considered quite rare, but dermatological experience would definitely appear to contradict this. In infection by these organisms, the nails appear lusterless and vary in color from gray to yellow, brown or green. They are usually brittle and scaly or partly destroyed.

The treatment of such cases is considered one of the most difficult problems of dermatology and results are often discouraging. There is no entirely satisfactory procedure, though many methods have been advocated. In any case, treatment must be continuous, and persistent until the condition is cleared, generally for about six months. Both medicinal treatments and X-rays have been employed and sometimes removal of the nail may be necessary. However, most dermatologists do not favor surgical ablation because of the frequency with which the new nail is infected.[9]

Indeed, it is quite well agreed that one particular danger of such ringworm of the fingernails is that it may become the focus of infection for other parts of the body or for other individuals.

Prolonged immersion of the nails in water may produce maceration and infection of the nail folds with bacteria or fungi. Such conditions are common among bartenders, cooks, dishwashers, fishermen, washerwomen, etc. Similarly, prolonged immersion in strong cleaning solutions by bottle washers, laundresses, dishwashers and others may result in onycholysis, a condition marked by a gradual separation of the nail plate from its bed.[5] However, such separation may be due to circulatory disturbances; to accompanying eczema, psoriasis, syphilis or it may be a symptom of avitaminosis.[3]

Hangnails are obviously conditions peculiar to the nails. These arise from tags of the nail fold which become detached and displaced upward. The base may become excoriated, slightly inflammed and painful. The condition is said to be quite common among those handling chemical irritants such as strong acids, lime and cement, and frequently results from nail biting (onychophagy).

Although the condition is trivial in itself, its prime danger is the fact that it so often is the point of entrance for pathogenic microorganisms, and may result in a severe paronychia. The treatment advocated by both Pardo-Castello and by Schwartz and Tulipan is essentially the same. This consists, in the early stages, in flattening the loose tag and sealing it with collodion. If infection has set in, the tag should be excised and a suitable antiseptic applied, followed by colloidion. If the lesion is very much inflammed, wet dressings of boric acid or of potassium permanganate should be applied.

As a deterrent to nail biting a harmless, unpleasant or bitter tasting substance may be applied to the nails. This may be tincture of quassia, tincture of aloes, or the following preparation, suggested by Goodman:[4]

Quinine bisulfate	4
Water	4
Anhydrous lanolin	12
Petrolatum, enough to make	100

This, however, is not always effective, particularly in adults where the nail-biting habit is due to nervousness or perhaps to a deeper psychic factor.

Ingrowing toenail is due to the penetration of the lateral edges of the nail plate into the tissues of the nail groove. This results in a more or less acute inflammation with the possibility of a secondary pyogenic infection. This condition may be due to a familial tendency or to the use of tight, or ill-fitting shoes.[8] The method of treatment in the latter case, is obvious.

Subungual hematoma or blood clot is a result of trauma. The exquisite pain first felt in such conditions is due to the pressure of the clot under the nail plate.

Also included under this classification are new, abnormal growths associated with the nails, such as extoses (outgrowths of bone tissue), epithelioma, melanoma, sarcoma, and the like. Their consideration has no place in this discussion.

In the second classification of nail diseases, e.g. onychodystrophies, are listed many diseases of the nails, some resulting in peculiar nail growths and nail shapes. "Dystrophies of the nails," says Pardo-Castello, "may affect the nail plate alone or all the ungual tissues. Often their cause cannot be ascertained, but at times they are clinical manifestations of different pathologic syndromes, either cutaneous or systemtic. Therefore onychodystrophies are only symptoms which may be due to the most diverse causes."

He includes brittle nails in this category. During recent years, considerable attention has been given to this form of nail abnormality and several reports on the subject have appeared in the medical literature. Since a comprehensive report on nail brittleness was recently well abstracted in this publication,[10] it is not necessary to go into extensive details in this discussion.

Brittle nails may be due to many possible causes and this condition is a common complaint in young women. The situation is aptly and concisely summarized in a note in the *Journal of the American Medical Association*:[11] "The causes of brittle or reedy nails are manifold. Frequent washing with soap and water or occupations which require prolonged use of soap and water may be at fault. The use of nail polishes and glazes and their removal with such solvents as acetone remove the natural oil from the nails, drying them. Any local irritation of the skin in the vicinity of the nail and nail beds which may reach the nail matrix can distort the nails and change their consistency, making them less flexible. Invasion of the nails by fungi may make them friable and crumbly. Systemic disorders too may cause the nails to be dry and easily split; these include, among others, hypothyroidism, hyperthyroidism and gout. The nails not infrequently become reedy in old age."

Brittle nails may also be a congenital condition or may be due to the action of certain chemical substances met with in industry. In addition, according to Low,[7] there is also a condition known as "eggshell nail," in which the nail plate is soft, semi-transparent, bends easily and splits at the end. This condition has been associated with arthritis, peripheral neuritis, leprosy and hemiplegia. This affection is somewhat similar to onychia syphilitica sicca, a dry, atrophic splitting condition of the nails which may be the only visible sign of late syphilis.

For treating brittle nails, more particularly that due to external factors such as the action of solvents and other deleterious substances, it has been advocated that, first, such substances be avoided. One authority[8] advises bathing the affected fingers in warm water, followed by massage with olive oil. He points out that several weeks are usually required before the nail plates regain their normal consistency and elasticity.

A publication of the A.M.A.[12] suggested the following nail cream for use on brittle nails resulting from polishes and polish removers:

Triethanolamine	10
White petrolatum	15
White wax	5
Anhydrous wool fat	5
Water	75

Application of this cream should be made nightly, and if possible, during the day as well. Rubber finger cots should be worn at night.

Other nail conditions that may be listed in this second category include lines or ridges, spots, color changes, and thickening of the nail body. Exposure to extreme cold, for example, may result in striations of the nail.[5] Transverse lines, the so-called "Beau lines", frequently appear as a result of infectious diseases, after trauma, nervous shocks, psychic disturbances, and, are sometimes associated with eczema or psoriasis.[3]

Whitish discolorations of the nails, often known as "gift spots" are a very common occurrence. These spots develop suddenly, rarely increase in size, and progress with the growth of the nail until they reach the free edge. Leukonychia, as the presence of such transverse spots and stripes is scientifically known, is not considered a symptom of any particular organic disease. However in many cases, this condition is attributed to trauma.[13] Blue-black discolorations may be the result of hemorrhage or of trauma. Certain trades may cause increased pigmentation of the nail.

Thickened nails may likewise be due to a variety of factors such as injury or nutritional disturbances of the extremities, to peripheral neuritis, leprosy, ichthyosis, tabes or hemiplegia, or they may also be a symptom of psoriasis, ringworm, eczema or the like. The nails are thickened in paromychia. The condition may also be congenital.[3]

In the third category is listed those nail abnormalities associated with manifestations of skin disease or of systemic disturbances. Obviously no hard and fast lines, differentiating this group from other classifications is feasible and several of the nail diseases, which might

(Continued on page 519)

THE CHEMISTRY OF CAPSICUM

CAPSICUM is the name of a genus of the Solanaceae, a natural order which includes many plants of medicinal and commercial importance. The name appears to be derived from the Greek "Kapso," to bite, alluding to the pungency of the fruit, or, according to other authority, from the Latin "capsa," a box, referring to the fruit pod or capsule. The great variation of the fruit in size and color led the early botanists to enumerate some thirty species, but at present only two are recognized: *C. frutescens*, the tropical species, apparently originating in America, but long cultivated in Africa, India, Japan, Europe and the southern states; and *C. annum*, the common garden pepper, which is also the source of the European paprika.

The botanical characteristics and information on the commercial varieties and standards are accessible in the standard works of reference: I will limit myself, therefore, to a short discussion of the available chemical data.

The most important constituent of the fruit of C. frutescens, the commercial red or Cayenne pepper, often called chillies, is the pungent principle known as capsaicin, discovered by Thresh in 1876.

The first insight into the nature of capsaicin was obtained by Micko in 1898 who isolated it by a very complicated and tedious process. He obtained it in white crystals, melting at 63° to 63.5°, showing the properties of a weak phenol and yielding a benzoyl derivative melting at 74.°

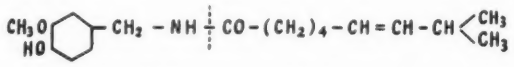
The presence of one methoxyl group was shown by the Zeisel method, and it was noted that with an alcoholic solution of platinic chloride, an odor of vanilla was developed on standing.

From C. fastigiatium (now C. frutescens) Micko obtained twenty times as much capsaicin as from C. annum (paprika).

The structure of capsaicin was established by the admirable work of the late Dr. E. K. Nelson. He prepared the methyl ether of capsaicin (m.p. 77-78) and from this compound by oxidation the methyl ether of vanillic acid (veratric acid): by acid hydrolysis, he obtained veratrylamine.

Acid hydrolysis of capsaicin yielded vanillylamine and by alkaline hydrolysis, a hitherto unknown decenoic acid, $C_{10}H_{18}O_2$. A partial synthesis of capsaicin was effected by combining synthetic vanillylamine with the decenoic acid obtained from capsaicin. Later, the complete synthesis was made with a synthetic iso-decenoic acid.

Capsaicin was thus shown to be the vanillylamide of iso-decenoic acid:

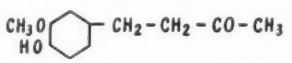


Vanillyl amine — Iso-decenoic acid

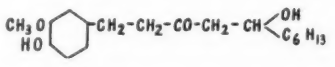
This formula was subsequently confirmed by Späth who obtained the necessary iso-decenoic acid by a different synthesis. Späth also emphasized the unpleasant effects from handling capsaicin, especially the extraordinary pugency of the dry powdered material.

It is interesting to note that the same vanillyl group is found in the pungent principles of ginger.

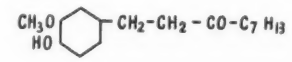
Gingerone



Gingerol



Shogasol



Miller & Ray have also found that certain other amides of unsaturated acids have pungent properties as, for example, the isobutyl amides of heptenoic and nonenoicacids.

The isolation of capsaicin by Micko's, or Nelson's process is very tedious. A method suggested by Tice, (Am. J. Pharm. 1933) is in many respects a decided improvement. The oleo resin is dissolved in mineral oil and the capsaicine extracted by 57% alcohol. The crude capsaicine is then dissolved in lithium hydroxide solution and precipitated by carbon dioxide and finally

By DR. FRANCIS D. DODGE*

crystallized from petroleum ether. In the writer's opinion, however, the use of lithium hydroxide offers no advantage over the usual alkalis.

The capsaicine content of commercial red peppers may vary from 0.1 to 1.% and an assay method has long been desired. The organoleptic method of the U.S.P. has been useful, but obviously cannot be regarded as completely satisfactory.

Tice (l.c.) has suggested a colorimetric method based on the fact that capsaicin gives a strong blue color with vanadium oxy-chloride. The method is of doubtful value, as the reaction is not specific but occurs with many phenols. A study of the process by Hayden and Jordan (J. Am. Pharm. Assn. 1941, 107) showed that the results were unreliable.

However, Tice's process for the isolation of capsaicin, with some modifications, may be made the basis for a useful assay method.

Capsanthin

The principal coloring matter of capsicum has been isolated and studied by Zechmeister (Am. 454, 455, 465). This compound, known as capsanthin, has the composition $C_{40}H_{58}O_3$ and belongs to the group of poly-en pigments, or carotinoids, which includes a large number of highly unsaturated long-chain molecules, with a nucleus generally C_{40} and distinguishable by their characteristic absorption spectra. The yield of capsanthin from paprika by Zechmeister's method is 0.12 to 0.13%.

By the improved method of chromatographic analysis, however, other carotinoids have been isolated. For example, Cholnoky (Ann. 509, 269) obtained from paprika:

	Capsanthin	2-3 gm per kilo
	Capsorubin	$C_{40}H_{60}O_4$ 0.4-1 gm. per kilo
also,	Zeaxanthin	$C_{40}H_{56}O_2$
	Cryptoxanthin	$C_{40}H_{56}O$
	Lutein	$C_{40}H_{56}O$
	Carotene	$C_{40}H_{56}$

a total pigment yield of 4.5-5 gm. per kilo.

Ascorbic Acid

Another interesting constituent of capsicum is ascorbic acid (vitamine C). The following yields have been reported (Chem. Abstracts 1937-8055) From:

Pimento	0.125%
Red Pepper	0.236%
Paprika	0.106%
Indian Pepper	0.572%

The following yields of ethereal extract have been reported:

African Mombasa	15-19%
Niger	18-22%
Bombay	12.5-20%
Japanese	13-23%
S. Carolina	10-16%

Naturally the yields will depend often on the selection and preparation of the material. Thus, from paprika whole pods, a yield of 8-12% was reported, while the seeds alone yielded 17-20%.

The product of alcoholic extraction, sometimes known as "capsicin" is apt to be stronger in capsaicin, but its content of extractive matter insoluble in fatty oil makes it less desirable for some purposes.

It is apparent that the constituents of capsicum so far mentioned are not, quantitatively, of much importance.

*Chief Chemist, Dodge & Olcott Company.

The greater part of the extract, or the commercial oleoresin, appears to be a mixture of fatty oil and acids which has not received much study.

The commercial oleo-resin of capsicum resembles a fatty oil in solubilities. From American spice, the oleo-resin is liquid and bright red: the African and Indian spices yield a product more brown in color and often of pasty consistency, especially when cold.

The specific gravity ranges from .925-.940.

The acid value, according to Allen is 90-100. It varies, however, with the solvent employed and uniform values are hard to obtain.

The saponification value is 190-210 (Allen).

Adulteration is not uncommon and may often be indicated by abnormal solubilities. Castor oil is a favorite material for sophistication but its presence can generally be shown by the formation of octyl alcohol, on heating the saponified oleo-resin with excess of alkali, or by the formation of heptoic aldehyde (oenanthol) on dry distillation.

As already noted, oleo-resin from African capsicum often shows a separation of crystalline material. By chilling and pressing a small yield of solid substance is obtained which can be freed from color by washing with cold acetone.

By crystallizing from hot alcohol, an acid is obtained, which is practically insoluble in cold acetone. A larger yield is obtained from the saponified oleo-resin.

If the oleo-resin is shaken with about 8 vol. of 0.5N alcoholic sodium hydroxide, it soon dissolves and on standing a magma of crystals is formed, consisting of the sodium salt of the new acid. The crystals may be washed with cold alcohol and the acid separated in the usual way but it is more readily purified by the following procedure.

For example, 100 gm. oleo-resin is mixed with 100gm. methanol and 45 gm. of 45% potassium hydroxide gradually added. The oleo-resin soon dissolves and on warming, or standing 24 hours, the saponification is complete. The mixture should be alkaline and completely soluble in water. The methanol may now be distilled off, or evaporated, and the residue warmed with 100-200 gm. water and a slight excess of acetic acid. The separated crude acid is dried, dissolved in 2 parts warm acetone, filtered if necessary and chilled for 24 hours or longer. The deposited crystals are filtered *cold* on Buchner funnel, or centrifuged, and washed with *cold* acetone till practically free from color and the product recrystallized from 5-10 parts hot alcohol.

Yield from African oleo-resin, 18-20%; from American, 15-18%.

Capsic Acid

The acid thus obtained is white, odorless and tasteless. It melts at 89-90 (uncorr.), is insoluble in hydrocarbon solvents, very slightly in cold acetone, readily in hot alcohol. It is optically inactive. It dissolves in dilute alkali to a soapy solution. Titration is inaccurate with aqueous solutions, but in strong alcohol an acid value of about 108 is obtained, which, for a monobasic acid indicates a molecular weight of about 518.

The micro-elementary analysis showed: C. 69.36%, H. 11.81%, indicating the composition ($C_5H_{10}O_2$) (calc: C 69.77, H. 11.63) and, from the titration, "n" would appear to be 6, and the formula of the acid, $C_{30}H_{60}O_6$ with molecular weight of 516.

This, if correct, indicates a saturated-tetra-oxy acid of the aliphatic series $C_{29}H_{55}\begin{cases}COOH\\(OH)_4\end{cases}$

The molecular weight determination, by the Rast micro method, gave, however, values of 1007, 1078, 1007, 979, which would indicate a doubling of the above formula, so that the true molecular weight is still uncertain.

Acetylation of capsic acid yields a crystalline acetate easily soluble in acetone. Its composition has not yet been determined.

The acid is interesting for various reasons. The occurrence of a completely saturated acid with the highly unsaturated carotinoids seems remarkable. The formula suggests a kind of combination of fatty acid with a sugar alcohol like erythritol. If one end of the chain were a CH_2OH group, an oxidation to a dicarboxylic acid analogous to the formation of saccharic acid from gluconic acid, might be possible, and, in fact, capsic acid is smoothly oxidized by nitric acid, yielding an acid, melting at about 90° and showing the expected acid value of about 212.

This and other reactions of capsic acid will be further studied.

In the examination of commercial oleo-resisn, the detection and approximate estimation of capsic acid has frequently been of use.

Civilian Morale and Cosmetics

(*Continued from page 509*)

uniforms were more attractive! So England's first and only woman-Major General is going to redesign ATS uniforms. Said she in her edict: "I maintain that you have to give women the smartest uniforms possible to get the best work out of them. A woman is affected by the way she looks. If she doesn't look smart, she doesn't work smartly."

And she might have added that, if a woman doesn't look smart she fails in her task of inspiring and encouraging her men-folk. As our programs for national and civilian defense begin to function more actively and unitedly, those whose major responsibility is national sentiment also should take lessons from the British records and recognize that in lipsticks, powder boxes, and cream jars lurk the stuff from which springs much feminine courage, confidence and zeal for meeting whatever may come. More than two years of war have proved that a wartime economy must provide "powder" for faces as well as for guns as one of the first essentials for maintaining civilian morale on the high plane essential to a wartime effort.

Report on the Consumer, the Cosmetic Industry, and Rayon Fabrics

(*Continued from page 512*)

chemists employed by his firm. The chemist gave him the following information written by Clyde H. Covington, Instructor in Spotting, National Association Institute of Dyeing and Cleaning:

"***Perfume Stains:***—A great many garments are spoiled every year by perfume. If women insist on putting perfume on their garments, tell them to use an atomizer. At every opportunity our customers should be advised not to douse perfume on their garments, because the solvents used in the perfume are very good solvents for many dyes and will produce dye rings for which the drycleaner can do nothing. Even if it does not produce a dye ring, a yellow stain usually develops in the area because many perfumes contain essential oils, which oxidize in a similar manner to salad oil stains and oftentimes become impossible to remove. Incidentally, the process of removal of such a condition is identically the same as the removal of oxidized oil stains by the use of pre-spotters and paint removers."

Even though this information is written on the subject of perfume, it also holds good for colognes. It again makes apparent the fact that consumers generally, do apply perfume and cologne directly to their clothes.

October 15—The combined audience of members of the Women's City Club and the Housewives' League heard the full report. Each League member is a delegate from other clubs in the state of Illinois. Several further invitations to give a talk on the subject were extended to the writer after the meeting.

October 21—*After summing up the entire problem* to date, the writer has come to the conclusion that the only way to prevent further occurrence of similar consumer complaints, is to embark on a wide-spread effort to impress the consumer of the fact that she must not apply cologne or perfume directly to fabrics. With this thought in mind, a complete review of the case was released to every beauty editor on Luxor's mailing list. The writer is sure these many editors will co-operate editorially with educational work in future cologne and perfume articles. It is hoped that in time to come, the rayon fabric industry will take constructive steps to warn the consumer of the danger in applying cologne or perfume directly to her clothes with well thought out informative labels.

The Nails

(*Continued from page 515*)

more properly be considered in this category, have already been mentioned.

Nail infections often result as secondary manifestations of skin diseases already present. This is especially true in psoriasis and eczema. In such cases the lesions of the nails are similar to those seen on the skin. However, they are usually more difficult to treat. Psoriasis of the finger nails, for example, is much more resistant to therapy than psoriasis of the skin.[12]

Many systemic conditions, such as syphilis and tuberculosis, may produce nail manifestations either directly or indirectly due to disturbances of circulation, innervation and nutrition.[8] More recently, Fox,[14] pointed out that systemic diseases, such as the anemias, avitaminoses and endocrine disturbances, may present important changes in the nails. Fox concludes that the influence of the hormones, particularly those of the thyroid and pituitary, on the development of the skin and its appendages should receive more consideration.

Somewhat the same view is held by Pardo-Castello, but he believes that there are no specific nail disorders typical of endocrine diseases. He does cite the fact that the value of thyroid administration has been proved in some cases.

Avitaminosis can affect the nails just as it may affect the general health. Cases are in record where nail abnormalities have responded to vitamin therapy.[8] Schwemmer[15] reported that the administration of vitamin A increased nail growth.

The fourth nail disease classification is devoted to congenital factors. Such defects are commonly associated with abnormalities of the skin, hair and teeth. For example, individuals with dry, squamous, atrophic skin, the hair is usually scanty, dry and brittle; the teeth undeveloped and separated and the nails are thin, friable, and atrophic or dystrophic.[5] Indeed, some persons are born without nails and never grow any.[4] Low[7] reports that shedding and atrophy of the nails, without any previous alteration, usually occur as a result of hereditary or congenital tendencies.

From the foregoing, it should be quite evident that the condition of the nails very frequently offers valuable clues with regard to the condition of general health. As a matter of fact, authorities on the subject[3,7] have urged that examination of the nails be employed as an important diagnostic aid.

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"DYSMENORRHEA"

By L. STAMBOVSKY

PAINFUL menstruation or dysmenorrhea is an extremely common malady—affecting from 40 to 50 per cent. of adult females in the reproductive era. As a rule, when due to functional disturbances, dysmenorrhea is classified as a sub-clinical complaint, i.e., one of definite and variable distress but of insufficient intensity to force the patient to seek medical aid. The transient and cyclic character of menstrual pain, the knowledge that the period of discomfort will pass in a few days and the intimate nature of the ailment are all contributory factors which discourage women from consulting a physician. This explains why, as any practitioner will attest, but a relatively small fraction of the total number of cases ever find their way to an examination room.

Irrespective of the attitude of the medical and pharmaceutical fraternities, and regardless of whether or not such is inimical to public health, the fact remains that we have herein a widespread dysfunction which the laity has and will continue to treat by self medication. Functional or primary dysmenorrhea is a relatively harmless disorder and little or no damage is done by self medication.

Physiologic normality is determined by majority reactions. Despite the tremendous prevalence of menstrual pain, distress accompanying such a normal function must still be defined as abnormal. The etiologic or causative factors have been divided into the two types of dysmenorrhea as follows:

"A." Primary Dysmenorrhea or those cases wherein there are no demonstrable pelvic lesions.

1. Hypotonia or a general lowered body tone brought about by fatigue, overwork, lack of sleep, anemia nutritional deficiencies, constipation, toxemia and possibly other destructive influences.

2. Neuroses. Disturbances in neurologic balance would obviously result in unfavorable repercussions upon such a complex phenomenon as menstruation. Specific conditions falling under neurogenic etiologies are nervous temperament, nervous exhaustion, hypertension, phsychologic dislocation and possibly other less definable dyscrasia.

3. Hypoplasia or under developed genitalia or sex organs is a culpable factor in many cases.

4. Absence of sex life.

5. Overdeveloped and unfruited procreative processes.

6. The most recent and possibly the most accurate etiology thus far advanced is endocrine dysbalance. Obviously such glandular incoordination is probably the result of one or more of the causative factors previously mentioned. The uterine and related musculature is normally in a state of equilibrium, that is neither excessively contracted or relaxed. This balance is maintained by the presence of estrogenic substance, which is the natural uterine stimulant, and progesteron, which is of the opposite effect, or uterine relaxant. An excess of estrongenic substance or a deficiency of progesteron, will in either event be characterized by hypertonicity of the uterus. It is generally accepted that this hyper excitation of the uterus and closely adjacent musculature is the actual seat of pain. It is interesting to note that "labor" pain and the pain of primary dysmenorrhea are of quite similar nature, differing mainly in severity but the mechanics and point of production are identical. The restoration of endocrine balance by the supplement of progesteron, the antagonist of estrongen, should and in some cases does afford relief. This treatment is of limited value inasmuch as it is expensive and requires hyperdermic administration.

"B." Secondary Dysmenorrhea.

Under this group are placed those cases wherein definite pelvic pathology exists. This includes such lesions as neoplasms, maldevelopment, malformation and inflammatory diseases. Complaints engendered by any of these pathologies positively demand medical attention. "Pharmacy," in the interest of public health and when possible, should make strong efforts to direct women so afflicted to a physician.

It is the consensus of medical opinion that the preponderance of all painful menses will fall under the classification of primary or functional dysmenorrhea.

Further analysis seems to indicate that hypotonia or a lowering of general body health and nervous or emotional instability are the most guilty contributory factors—directly or indirectly. Many women have noted that upon the accidental or intentional elimination of those factors responsible for their malady, they suddenly found themselves rid of the disorder. Normal sex life, pregnancy, a comprehensive diet inclusive of the necessary vitamins, minerals, fats and proteins, sedation and psychiatry are all potential curative agents.

The symptoms of primary dysmenorrhea are not complex, namely pain ranging from mere discomfort to a degree approaching that associated with labor, occuring in the pelvic and lower abdominal regions. These symptoms may appear several days before commencement of the menstrual flow and continue for several days after its cessation. Reflex reactions such as nausea, headache, neurasthenia, and possibly other disturbances frequently are part of the dysmenorrhea syndrome. Whatever the degree of distress may be, the patient is disabled partially or totally, at least so far as work is concerned. Women in this condition if engaged in industry and millions of them are, are a liability and unproductive. In these days when man-hours and women-hours of output are so vital, keeping these women on the job is certainly a service to national defense. As a matter of fact, industry is beginning to be cognizant of the foregoing and in some instances is supplying medication for symptomatic relief.

The exact point of origin of functional menstrual pain is the uterus and closely adjacent musculature which has been stimulated into a state of spastic excitation. It is somewhat analagous to the pain evolved by any muscle in spasm or more commonly known as cramps. We have already discussed the factors responsible. Uterine spasm gives rise to another focus of pain. By a narrowing of the cervical canal and internal os, the free flow of menstrual discharge is prevented and subsequently an inter-uterine pressure is built up. The distressed organ is further embarrassed by this imprisoned flow which elevates the existing pain level.

Efficient therapy would be that treatment which would attempt to eliminate the source of pain rather than render the body insensible to its presence. Relaxation of the spastic uterus would and does accomplish this objective. Expense, slowness of action and self treatment preclude the possibility of glandular therapy occupying a major role in dysmenorrhea materia medica. Ephedrine is an extremely effective antispasmodic and almost without exception, is a specific for the relief of menstrual pain. Its effect is enhanced by the addition of any analgesic to mitigate possible residual or reflex pain such as headache. Several formulae are as follows:

(1) Ephedrine Sulphate.....gr. 3/8
Aspirin.....gr. 5

(2) Ephedrine Sulphate.....gr. 3/8
Phenacetin.....gr. 5
Phenobarbital.....gr. 1/2

(3) Propadrin.....gr. 1/2
Aspirin.....gr. 2 1/2
Phenacetin.....gr. 2 1/2
Caffeine Citrate.....gr. 1/2

It will be noted that formula No. 2 contains phenobarbital. This drug serves a dual role. First its sedative action calms the over-wrought nerves of the patient, and secondly, it neutralizes the central nervous system —Dizziness, rapid heart, higher blood pressure, general feeling of vague uneasiness, stimulation which is an unfortunate side reaction of ephedrine. Most states prohibit the over the counter sales of barbituric acid derivates and therefore this formula could be dispensed only upon a physician's prescription.

In several cases it has been found that Benzedrine by inhalation is a convenient and effective palliative. While this drug has an even greater side reaction than ephedrine, i.e., central nervous system stimulation, its convenience and ease of administration, and its potency as an antispasmodic are strong invitations for further clinical study.

FOOT POWDERS

By JOSEPH KALISH

RELIEF of foot discomfort can, with proper promotion, be a source of substantial profit to the wide-awake manufacturer, and in this space we hope to give some indications as to various types of formulations.

In the first place, we believe that preparations for the feet must necessarily be considered to be drugs as far as the Food, Drug, and Cosmetic Act is concerned and should be labelled accordingly, since preparations of this type will have little to do with personal adornment but will be formulated for physical relief.

Preparations for the care of the feet must accomplish a certain number of things, depending upon the type of preparation. Foot baths, powders dissolved in warm or hot water, must provide a sense of comfort and cleanness to the feet. This comfort first involves relief of tiredness and pain; the clean feeling is accomplished by means of perfumes, deodorants, and astringents. Powders to be dusted into shoes should be absorbent and pick up excess moisture, and astringent to retard the development of this moisture.

Foot bath preparations are powders, or tablets, to be dissolved in hot water. The resulting bath, by virtue of its temperature alone, will have a beneficial effect in promoting circulation in the lower extremities and thus giving prompt relief from puffiness and the tired feeling resulting from ill-fitting shoes and extensive walking or standing. A preparation consisting wholly of colored sodium chloride or sulfate or magnesium sulfate will thus be of some value because of the temperature of the water. Some writers, however, have contended that alkaline solutions are better than neutral ones, and mild alkaline solutions are to be preferred for foot baths. Mixtures of this type may be made by the use of sodium bicarbonate, sodium carbonate, or sodium sesquicarbonate. An additional merchandising value may be conferred upon foot baths by formulating them for effervescence. This is done in the usual way, by making a dry mixture of a powdered organic acid with sodium bicarbonate, the latter being in excess if an alkaline solution is desired. Tartaric acid has long been popular, especially because of its moderate cost, as the acid ingredient. This element of cost is no longer valid, tartaric acid being virtually unobtainable. Citric acid has almost wholly replaced it, but supplies of this domestic acid are not plentiful. A representative footbath powder would contain 15 parts of citric acid, 30 parts of sodium bicarbonate, with soluble materials such as sodium chloride or magnesium sulfate making up the balance to 100 parts. Effervescence is sometimes based upon the liberation of oxygen instead of carbon dioxide and is accomplished by the use of sodium perborate and a very small amount of a catalyst such as manganese dioxide. The liberation of gas may provide some additional stimulation to the feet other than that obtained by the use of heat, but there is no reason to believe that oxygen bubbles will be more efficacious than the commoner carbon dioxide.

It is possible, on the basis of formulation outlined above, to incorporate active beneficial ingredients in foot bath powders. Since it is intended to ease tired feet, psychological benefits become real benefits. Thus the use of small amounts of menthol or peppermint oil will have a cooling effect, gratefully acceptable to the customer. As in all instances in which menthol is used for its cooling effect, excess must be avoided to prevent overstimulation. Even more important is the real relief obtainable by the use of local anesthetics in foot baths. Small amounts of benzocaine, cycloform, chlorobutanol and similar products added to the preparation will quickly relieve aches from corns and abrasions and generally contribute to the feeling of well being.

An astringent is a useful addition to this type of preparation, in that it serves to retard excessive perspiration and may in time make the skin less sensitive. Alum and other aluminum salts are effective in this respect, but should not be used in alkaline mixtures. Paraformaldehyde and tannic acid are also extremely useful in soluble mixtures. Small amounts of an antiseptic serve to complete the formulation. Examples are oxyquinolin sulfate, and boric acid.

Sodium sulfate	50.0
Sodium thiosulfate	30.0
Alum	18.5
Chlorobutanol	1.0
Oxyquinolin sulfate	0.5
Color and Perfume	

Citric acid	5.0
Sodium bicarbonate	20.0
Paraformaldehyde	5.0
Menthol	0.4
Benzocaine	1.6
Sodium perborate	5.0
Sodium chloride	63.0
Color and Perfume	

Foot powders for use in shoes should be based upon powders that are for the most part insoluble, absorbent, and astringent. The first requirement is the ability to absorb excessive perspiration. Starch has often been recommended for this purpose, but has disadvantages far outweighing its possible benefits. In the presence of moisture, the starch will become somewhat pasty and make an unpleasant mess. Furthermore, even with sufficient antiseptic, there is the possibility that this organic material will serve as additional nutrient material for bacteria and fungi. Colloidal clay, which need not be completely white, is high on the list of useful absorbents. Others include Fuller's earth, infusorial earth, and magnesium carbonate. Magnesium trisilicate and colloidal aluminum hydroxide powder, used for antacid purposes, have not as yet been used in this connection, but there is no reason why they should not be (with the possible exception of cost factors). Aluminum hydroxide should be particularly useful because it combines astringency with absorbent power.

Astringent materials include alum, tannic acid, paraformaldehyde, hexamethylene tetramine, zinc and magnesium peroxides. An inert diluent, with some absorbent value, is talc, which can be used as an extender.

An antiseptic is also useful in foot powders, but this function is filled by formaldehyde and peroxide derivatives first mentioned as astringents. An anesthetic, if thought necessary, may also be included.

Colloidal clay	50.0
Talc	25.0
Zinc peroxide	15.0
Magnesium carbonate	10.0

Colloidal clay	60.0
Fuller's earth	34.0
Tannic acid	5.0
Oxyquinolin sulfate	1.0

Talc	50.0
Magnesium trisilicate	47.0
Methenamine	3.0

NO MORE CELLOPHANE

Use of transparent cellulose has been prohibited by an order of Donald M. Nelson, Director of Priorities. The order was effective November 7, the day it was issued, and includes, besides cosmetics, soaps, razor blades, rubber and rubber products, candles and wax products, paper and paper products, hardware, metals and sporting goods, electrical equipment, Christmas bells, flower pot covers, bows and rosettes, flowers, wreaths and garlands, soda straws, ribbons, household rolls, and gift wrappings.

The reason for the restriction of the use of cellulose wrappings is that large quantities of chlorine, phenol and glycerine are used in the manufacture of this material. Since everyone knows that these chemicals are not in sufficient supply to satisfy defense and civilian requirements, it is not surprising that this order has been issued.

Users of transparent cellulose are given sixty days from the date of the order to exhaust stocks on hand. Suppliers of the material who have cut the material in such a way that it can be used only by the customers, are also allowed sixty days to dispose of the material.

Further studies surrounding the manufacture of the material and the supplies of the chemical raw materials necessary to its manufacture, with a view to extending the curtailment to the packaging of foods and tobacco products. However, cigarette makers have already cooperated by halving the thickness of the metal foil which they use, and this is said to have effected an annual saving of 16,000 tons of lead and 400 tons of tin.

WARTIME APPLICATIONS TO COSMETICS AND DRUGS

By ERIC HARDY, F.Z.S., Liverpool, England

WAR is more often a stimulus to a new progress in industry than anything else, and in Britain and its Empire the drug and cosmetic industry continues to make new applications and improvements despite the times which have faced the whole world with difficulties and uncertainties. I can best summarize the present war position of the drug and cosmetic industry here by mentioning some of these instances, without, of course, disclosing any information that might be useful to a power hostile to the U. S.

Following a world survey of the drugs and chemicals used medicinally we have adjusted our production plant so that we are supplied with many products not previously manufactured here, and thus a great deal of inconvenience has been avoided.

Recent research has shown that sulfathiazole or penicillin, administered in the form of snuff may be used as an antiseptic to lessen the invasion of the nose by bacteria, and, although this may not prevent or cure the common cold, such use will aid a speedy recovery by preventing secondary bacterial infection in crowded places. The tests were carried out with the simple mixture of 10 parts by weight of sulfathiazole with 90 parts of magnesium carbonate, and the penicillin snuff consisted of 1 part of penicillin, 5 parts of menthol and 94 parts of lycopodium.

Since Japan, handicapped by its China war, has been planting less pyrethrum in order to grow more rice for food supplies, the new East African herb farms have become the most important source of supply of pyrethrum to the United States and they produce over eighty per cent. of the American purchase. Britain is developing an enormous colonial and Empire herb industry so that during and after the war the former herb industry of Continental Europe, which has been destroyed by the German occupation, can be replaced by drugs, perfumes and other herb products from East Africa, many new herb farms in England, and probably also from the West Indies, India, Australia and South Africa. India and Australia continue to exploit their natural resources of sandalwood oil for the perfume trade, English herb farms have put down considerable new acreages of lavender, belladonna, hyoscyamine, aconitum, digitalis, etc. with a view to export. The prewar Japanese and German monopoly of the camphor trade is being broken by cultivation in India, Burma, Ceylon, Malaya, the West Indies, the Sudan and East Africa, and a synthetic camphor industry in England. Thymol is being produced in India, the Seychelles, Sierra Leone (West Africa) and Montserrat to replace the commercial thymol formerly produced in France and Spain. The chamomile industry was formerly largely a Belgian trade which has now been destroyed but the plant is being cropped in Kenya; Caraway formerly produced in Holland and Germany is also being produced in East Africa. Indian valarian has replaced prewar Dutch and Belgian products in the British Pharmacopoeia. The British Government is expanding the drug herb industry in Canada, New Zealand, East Africa, India and Australia for the production of argol, agar, wood creosote, datura, ephedra, liquorice root, santonin and squill.

In view of the important place vitamin K is assuming in the treatment of hemorrhagic diseases, it is interesting to note that a new process in obtaining the therapeutic preparations avoids the former losses in the active power of the substance which were caused by the action of the methyl or ethyl alcohol used in the previous preparations. This is avoided by the use of a non-alcoholic lipoid solvent like hydrocarbons, ketones, especially acetone, ethers, especially dioxane, esters, or carbon disulphide or aqueous solutions for the purpose

We present an article from England telling of some of the changes that are being made in that country to overcome shortages of the materials of this industry. Raw materials from various parts of the Empire and from other countries are replacing materials from continental Europe. Also substitutes are being effectively used.

of eluating the adsorbate. The concentrate can be suspended in water by treatment with emulsifying or stabilizing agents like salts of fatty acids or bile acids, like desoxycholic acid, or of sulfonates of higher alcohols or sulfonic acids.

A method of treating bacteria so as to obtain the antigens in a form having high immunogenic value and substantially free from non-specific impurities has been perfected by the use of reagents like guanidine, mono- di- and tri-ethanolamine, pyridine, quinoline, piperidine and morpholine to dissolve out the residue from bacteriological cells in which the antigenic and immunigenic properties are due to the presence of a residue constituted largely of polysaccharide. The residue is obtained in a solution free from extraneous protein and other non-specific or injurious impurities. This avoids the solution of the entire bacterial cells and a subsequent treatment of the resulting solution which was typical of former processes.

Another new process is for mixing with an aqueous solution of an alkali metal salt, any aryl-amide of salcylic acid and a wetting agent, and one or more water-soluble proteins, water-soluble carbohydrates or water-soluble polysaccharide gums, together with a non-acidic water-soluble sodium or potassium salt, to dry the mixture and pulverize, flake or granulate the mass for use as a farm or garden fungicide against mildew on tomatoes and roses, the product being free from dustiness and readily miscible in water. An example is as follows: 200 parts of salicyl-anilide are added to a solution of 42.4 parts of caustic soda dissolved in 300 parts of water, the mixture heated to about 80° C., stirring to dissolve the salicyl-anilide. To this are added 160 parts of a 50% aqueous solution of the sodium salt of sulfonated oleic acid, 63 parts of yellow dextrin and 40 parts of common salt, and the ingredients dissolved by stirring at 80° C. The solution is then dried on a steam-heated double-drum dryer at 140° C. to leave the product in thin, friable sheets easily broken into flakes.

Some interesting progress has also been made in the use of creams instead of ointments in dermatology, in order to replace suet and lard bases which now have an added food value. Linseed oil is replacing the lard base in many of these preparations. In seeking suitable bases for the oil-in-water type of emulsion for wartime cosmetic creams, attention has been directed to glyceryl monostearate mixed with small proportions of a sapamine salt, and to mixtures of cetyl and stearyl alcohols containing sulfated or phosphated derivatives. Bentonite has been used in conjunction with glycerol monostearate and the stability of gelatinous hydrated aluminium hydroxide towards mild acids has been found useful. For instance a calamine cream formula has been devised as: 10 gms. calamine, 10 gms. zinc oxide, 25 gms. almond oil or linseed oil, 8 gms. glycerin (or if unobtainable, sorbitol or 1, 2-propylene-glycol), 35 gms. hydrated aluminum oxide and 100 gms. water, dispersing the hydrated aluminium oxide in the water, to which the glycerin and almond oil are added, the mixture of calamine and zinc oxide finally being worked well into the emulsion.

Before the war the cosmetic industry relied upon Germany for the supplies of a well known alcohol-ester mixture but this has now been replaced by a British made product containing ten per cent. of a sodium alkyl sulfate in place of the phosphated derivatives and it has proved an effective emulsifying agent. Manchester research chemists have produced an emulsifying base consisting of 3 parts liquid paraffin, 2 parts white petroleum jelly and 2 parts of a mixture of higher fatty alcohols (hexadecyl or cetyl and octodecyl or stearyl) containing ten per cent. phosphated acidesters of the alcohols or the new substitute of sodium alkyl sulfate.

PRIORITY SITUATION

SECURING of raw materials and supplies during the present emergency is foremost in the minds of most manufacturers. Whether to try and obtain priorities, or whether to string along with suppliers in the hope and belief that they will do all they possibly can, is a serious question. Many who have made trips to Washington and have obtained priorities of one sort or another, have found that these priorities that they have worked so hard to get, have been ineffectual in obtaining the desired supplies. This is because there are many different grades of priorities starting at the top with materials going to the armed forces or abroad under Lease-Lend activities.

We have seen a priority signed by the top OPM official for zinc oxide. When this priority was delivered to a large manufacturer of zinc oxide, he refused to fill the order stating that he must have a letter from Washington directing him to take the material from the stockpile reserved for the government. So the priority was useless. The story goes that priorities with a B-7 rating are handed out freely in Washington, but they are no good to the manufacturer who gets them even though he is quite impressed that he is being given something that has real value.

Easy to Obtain

However, there are two types of materials on which no one should be held up. These are plant maintenance and repair supplies and research laboratory supplies. In order to obtain repair parts, no application to Washington is necessary. All that a manufacturer has to do is to place his order for replacements or repair parts with his supplier and write on the face of the order and all copies the following statement:

> "Material for Maintenance, Repair, or Operating Supplies—Rating A-10 under Preference Rating Order P-22, as amended, with the terms of which I am familiar."

This constitutes legal use of the rating, as to the materials subject to this rating. Orders sent under this rating must be separate from any other orders, and this rating must not be used if the materials needed can be obtained without its use.

To obtain research laboratory requirements, it is necessary to apply to the Director of Priorities for a preference rating order No. P-43, assigning a preference rating of A-2 to deliveries of materials which will be used for scientific research. The application must be made on form PD-88. These applications are to be forwarded to the Chemical Branch, OPM, which will refer it to the Division of Priorities. Applications should not be filed if the goods can be obtained without the necessity of obtaining a preference order.

For protection of the drug manufacturers there is the Health Supplies Rating Plan under which an A-10 Preference Rating is given for health supplies. This plan is not to be used by the drug manufacturers themselves, but is to be used by those who manufacture chemicals and other raw materials, as well as packaging and other materials, and equipment for the drug manufacturers. The people who supply the drug manufacturers apply for the Preference Rating so that they will be able to manufacture those things which the OPM determines are health essentials. Naturally enough, the entire list of drug products on the market, proprietary and otherwise, will not be considered health essentials. Officials in the OPM are now understood to be working out a list of essential health products, similar to the list worked out in England and recently published in this magazine.

OPM Drug Survey

The OPM is understood to be making a survey of the drug manufacturing industry. They are said to be making their survey independently and through the trade associations. When this survey is completed, it is possible that the method of giving supplies to drug manufacturers might be changed from the present Health Supplies Rating Plan to some other method. This might be all right for those who are making essential drugs in the opinion of the OPM, but it might not be so good for those who are making products that the

OPM will not, at that time, consider essential. Under the present system it is possible to go over the authority as expressed by the Health Supplies Rating Plan and obtain supplies. Under a new system, this probably will not be possible.

Allocation Plans Now

The newer plans under consideration by the OPM are more along the idea of allocation or rationing of available supplies than along the idea of priorities. The priority system has been formulated with the idea that defense requirements come first, and then civilian requirements are listed in preference order. This is called by some the "ladder of industry" plan. This means, for example, that in the case of alcohol, defense needs would come first, and then the OPM would decide what industries were to be preferred after defense orders were filled. The OPM might decide that anti-freeze was most important after defense, and cosmetics after anti-freeze, and paints after cosmetics, and so forth. The trouble with such a plan is that some industries down the list might get no alcohol at all and be completely eliminated. Under the allocation or rationing plan now coming into vogue, defense orders are filled, and then all other supplies are rationed out to all users in accordance with their former requirements. This would mean that all users would get a certain percentage of their former requirements in accordance with how much alcohol was available after defense orders were filled.

Under the allocation system, however, the government is deciding that some uses of certain products are unnecessary and are ordering that these uses be stopped. This is the case in the recent order curtailing production of transparent cellulose. The reason for this curtailment is that chlorine, phenol, and glycerine are used in the production of transparent cellulose, and these three chemicals are in very short supply because of their heavy use in defense supplies. The order prohibits the use of transparent cellulose on cosmetics, soaps, razor blades, and numerous other products and gives users sixty days from November 7 to use what they have on hand.

An allocation plan has also been inaugurated in the case of phenol. Under this order it is stated that the OPM will give the producers of phenol specific directions as to their shipments of phenol each month. This order becomes effective December 1. Special inventory reports of phenol will be required of all non-producers who have more than a thirty-day supply of phenol on hand when the order goes into effect. This order is required because of the shortage caused by the increased use of plastics in aircraft production and heavy military export demands.

More and more of these allocation orders can be expected almost daily as the OPM moves ahead under its recently appointed head, Donald M. Nelson. The straight priorities system just did not produce results, and it is necessary for the OPM to change its method to one of allocation or rationing. All of these plans are subject to revision as either the situations surrounding various products becomes tighter as greater military demands are made, or as the situations become easier due to increased production. In the case of alcohol and phenol, for example, production capacity is being increased as rapidly as possible and it very likely is that some of these increased supplies will improve the situation for civilian needs.

OPA More Active

The OPA, or Office of Price Administration, is becoming much more active with regard to supplies which this industry needs. Recently a price ceiling was announced on glycerin. This ceiling reduced the prices which the glycerin distillers were quoting for the last quarter of this year. This office is under the direction of Price Administrator Leon Henderson. Recently, Frank Delgado, formerly of the old Chemical Division of the Department of Commerce, was placed in charge of medicinal chemicals, crude drugs, and essential oils. Mr. Delgado has been busy obtaining information that

(Continued on page 529)

COSMETIC ANALYSIS

ANALYSIS and determination of ingredients present in cosmetics is a subject in which the officials of the Food and Drug Administration is making much progress. At the Annual Convention of the Association of Official Agricultural Chemists, held late last month in Washington, one session, under the chairmanship of Dr. Dan Dahle, Chief of the Cosmetic Division of the Food and Drug Administration, was devoted entirely to this subject. Numerous interesting reports which were given at this session are summarized as follows:

1. Alkalis in cuticle removers. The author found sodium and potassium hydroxides and carbonates to the amount of from 3 to 5%. He suggested the use of Naphthol Yellow S., as an indicator of a qualitative test for potassium in the presence of sodium.

2. Beta Naphthol in Hair Lotions. A method for the determination was suggested for further study.

3. Resorcinol in Hair Lotions. This paper consisted of a survey of the common ingredients used in hair lotions. The author suggested that the nitrosation method gave more specific results than the bromination method and recommended further work.

4. Salicylic Acid in Hair Lotions. The author suggested that the lotions be acidified and dealcoholized at a temperature below 70°, and then extracted with chloroform and neutralized with sodium bicarbonate and that the determination be made by the bromination method. This process was suggested as a tentative method.

5. Cosmetic Powders. The author proposed the use of official A.O.A.C., methods for determination of the following ingredients: Stearate; zinc oxide; matter soluble in hydrochloric acid; bismuth; acid insoluble iron; aluminum; magnesium; calcium; acid soluble iron; aluminum; magnesium and calcium; silicates; titanium; barium sulfate; silica; starch; and a qualitative test for lead.

6. Vanishing Creams. The authors made determination of non-volatile materials, moisture, ash, matter insoluble in chloroform and developed a method for the determination of carbitol. This method consists of conversion into xanthate by use of potassium hydroxide and carbon bisulfide and recovery by titration with iodine from the water soluble matter.

The presence of ethylene and propylene glycols and triethanolamine interfere with the process. It was suggested that these be separated from the carbitol by washing with ether and water. The authors proposed that the method be submitted to collaborators for confirmation.

7. Dentifrices and Mouth Washes. A method for the detection and methyl cellulose (used in place of tragacanth) was proposed.

8. Deodorants and Anti-Perspirants. The authors' work was interrupted by his induction into military service. He proposed the determination of water, ash, aluminum in the presence of sulfates, aluminum in the absence of sulfates, zinc sulfate, potassium, potassium and sodium, alcohol in the presence of volatile substances and in the absence of volatile substances, boric acid, salicylic acid, starch, methenamine and urea by standard methods of the A. O. A. C.

9. Depilatories. The author outlined a method for determination of sulfides in powder materials which was recommended as an Official Method, and proposed that work be continued on sulfides in liquid and paste depilatories.

10. Hair Dyes and Rinses. The author studied three methods for the determination of paraphenylenediamine and after a series of determinations, the volumetric method and the diacetyle method were proposed as Official.

11. Hair Straighteners. The author worked on alkaline preparations and determined that they consisted in general of some 8 to 9% sodium hydroxide. Other ingredients were found to consist largely of lard, petrolatum, starch and alkaline hydroxides and carbonates. He recommended that this work be made the subject for collaborative study.

12. Eye Lotions. The author worked on the determination of the presence of astringent salts of zinc, aluminum and mercury. Also on the pH and on the osmotic pressure.

Several papers relative to the determination of the purity and characteristics of coal tar colors were also presented.

Priority Situation

(*Continued from page 527*)

would give him a background for such action as must be taken on these products. In the near future, therefore, action on the prices of the raw materials for this industry might occur from day to day. With regard to medicinal chemicals, the action would be to control second-hand sellers and new makers who have entered the field in a small way because of the high prices that can be obtained for many medicinal chemicals.

Ceiling Exceptions

The OPA, however, is not entirely firm about its ceilings and will allow some manufacturers, whose costs are higher, to charge higher prices if production of essential things can be increased by such a method. Recently the OPA allowed one small alcohol distiller to charge five cents a gallon more for his alcohol than the price set by the ceiling. Also they allowed another very large distiller to charge 49½ cents a gallon for alcohol made from raw sugar, although the ceiling price is 24½ cents per gallon. However, this distiller is going to make 4,000,000 gallons of alcohol in the months of October, November, and December of this year, and this is the peak of the demand for alcohol due to its large use as an anti-freeze. As is generally known, the methanol and ethyl alcohol shortage have both caused a drastic shortage in anti-freeze, and in addition, ethylene glycol is in short supply because of the military demands for it as an anti-freeze and as a solvent, and also because chlorine is used in its manufacture. Anything that will relieve the alcohol stringency will aid this industry, and the matter of the price to be paid for the alcohol is not a matter of great moment. All that this industry wants are supplies at prices that are controlled, even though they are higher.

The OPM recently issued an order prohibiting the use of copper and brass in lipstick holders, vanity cases, and other cosmetic containers after January 1, 1942. This order is still under discussion and is subject to further interpretation. Furthermore, it is subject to future conditions in the production of copper. The government has contracted for increased requirements of copper from mines that were unable to operate in the ordinary market because of their much higher costs of production. Action of this kind will increase the output of copper and might make for relaxing of the stringency surrounding civilian supplies.

Zinc Oxide Allocation

The rationing or allocation method of distribution referred to above has been ordered in the case of zinc oxide under an order issued by the OPM October 24. Under this order, producers of zinc oxide are to set aside for defense purposes a quantity to be determined from time to time by the Director of Priorities. This material can be shipped only under the express direction of the Director of Priorities. But the balance of the producers' zinc oxide is to be shipped "in such manner that each customer shall receive a percentage of the producers' commitments to him for the month, including both defense orders and non-defense orders, equal to the percentage received by every other customer: Provided, however, that a producer may satisfy in full his commitments to any one customer during any one month up to not exceeding 2,000 pounds."

The number of raw materials in this industry which are becoming short is steadily increasing due to various reasons. The salicylates are in short supply due to the fact they are made from phenol. Hexamethylenetetramine is extremely tight because the government is reported to be demanding right now more than can be produced in this country under present production capacity. Methanol, alcohol, and other solvents still remain in a very tight position. Toluol is naturally very hard to obtain since it is the raw material for TNT. Acetanilid, bismuth salts, zinc salts, tannic acid are hard to obtain because of government demands for these materials and for the raw materials from which some of them are made. Cacodylate salts are very short because of the fact that they were largely of imported origin heretofore. Atropine, hyoscine, theophylline, tartaric acid and licorice are in very short supply because the imported origin of the raw materials from which they are made, and because these raw materials cannot be replaced in this country. Gum acacia is not coming through from foreign sources because of the war conditions.

The vitamins are in demand that is greater than the supply. This is particularly true of riboflavin. However, new plant capacity for the synthetic vitamins will relieve this shortage some time in the future, according to the opinions expressed in the industry.

Closures

No great difficulty has been experienced with obtaining package closures, except that the demand has exceeded plant capacity. Materials such as cork, tinplate, and plastics, have evidently been available in sufficient quantity for these uses, but the quantities being used have greatly increased, and in addition heavy buying for future needs has been engaged in because buyers thought that a real shortage of supplies might develop. The fact that these materials have been available, is remarkable when it is considered that cork must come from Spain, and that steel for tinplate, tin for plating, and plastics are strategic materials for which the defense demands are extremely heavy. Further, tin must come from the Far East and future supplies might be quite completely cut at any time.

Paper Curtailment

The paper situation is a serious one that is going to call for curtailment all around. A report has been made to the OPM by the committee of this industry. This committee is headed by Roy Peet, of Colgate-Palmolive-Peet Co., and other members are J. V. Clark, of Allied Products, Inc.; Palmer J. Lathrop, of Bristol-Myers Co.; and John H. Maget, of Merck & Co. The

report submitted is a plan to obtain a twenty-five per cent. reduction in the amount of paper used by this industry. The report applies to drugs, pharmaceuticals, packaged chemicals, cosmetics, and soap. Salient points of the report are:

1. Floor stocks of folding boxes, shipping containers, or other paper board limited to ninety days requirements with limit of ninety days requirements on order, except there is no limit as to time on order less than twenty tons.

2. Manufacturers shall discontinue shipping cases in excess of standards prescribed by rule 41 of the Consolidated Freight Classification or by Interstate Commerce Commission.

3. Manufacturers shall discontinue solid fibre board except where required by the I. C. C. or other official regulation.

4. Manufacturers shall effect savings by reduction in the number and size of labels, reduction in weight of cartons, reduction in number and size of circulars, reduction in size and weight of individual wrappers, reduction in size and weight of shelf wrappers, re-use between supplier's plant and user's plant of shipping cases, re-design of packages to use less board or paper in relation to the product.

5. Manufacturers eliminate all paper cartons from products first packaged in metal, glass, wood, plastic, paper, paper board, with these exceptions: Products requiring appliances, collapsible tubes, products which require sanitary protection or protective covering, products which absolutely require a circular for technical, scientific, or medical directions which cannot be included on the label and cannot be incorporated with the product by means other than a carton.

6. Manufacturers shall eliminate all circulars except as required by law or as required for necessary directions that cannot be included on the label.

7. Manufacturers shall eliminate all display containers except display containers that also serve as necessary protective coverings.

8. Manufacturers shall eliminate superfluous wrappings or protective coverings where not essential for protection or required by law or health authorities.

9. Paper board for collapsible tube cartons shall not exceed a caliper of 0.016 weighing 69 pounds per 1,000 square feet on basis of regular finish white patent coated, except giant sizes holding five ounces or more gross weight of contents not including carton itself shall be allowed a caliper of 0.018 weighing 77 pounds per 1,000 square feet.

The committee estimates that 5,000 tons of folding box board is used for packaging collapsible tubes, and that the above method will save 350 tons, or seven per cent.

The committee is working on other problems such as the determination of standards for folding box cartons used for products first packaged in metal, glass, wood, plastic, paper, paperboard and for products which are themselves durable. Work is being conducted on set-up boxes in which savings are possible by reduction of weight and reduction of the size of the box in relation to the product contents. This is a very difficult problem involving a wide range and variety of products, and manner of packing.

Glass Containers

The glass container situation has been one of real tightness with all plants going full tilt. But here again, the shortage has been brought about by the increased demand for immediate needs as well as by the tendency to buy ahead. The practice of buying ahead has a tendency to fall of its own weight, as there is a limit to how far manufacturers can build up their inventories of glass containers. A decline in this forward buying together with a decline in demand for the bottled products when the new tax bill exerts its deflationary effect can easily bring about a much easier condition in the glass bottle market as it can in many other markets.

Machinery

Machinery is difficult to obtain, even though repairs and maintenance parts can be obtained with difficulty under the preference plan referred to above. When new machines are required, either to replace an old machine or for increased capacity, it is necessary to make application on Form PD-1. This must be submitted to the Priorities Division of the OPM with a description of the machine required. If the OPM decides that the machine is necessary, then an order to purchase the machine is issued by the OPM. But new machines cannot be obtained under the repair and maintenance priority plan. It must be understood, however, that it is not necessary to bother with any priorities if machines or anything else can be obtained without making application for preference. If a manufacturer can obtain anything he needs without making application for a preference rating, then he should do so. Applications for preference ratings should be made only after the normal course of procedure has failed.

Title 32—National Defense

Subchapter 1015—Cellophane and similar transparent materials derived from cellulose.

Limitation order L-20.

To limit the use of cellophane and similar transparent materials derived from cellulose.

Whereas, the manufacture of cellophane and similar transparent materials derived from cellulose requires utilization of large quantities of chlorine, phenol and glycerine; and

Whereas, national defense requirements have created a shortage in these materials for defense, private account and export; action has already been taken to conserve the supply and direct the distribution of chlorine and phenol to insure deliveries for defense requirements; and

Whereas, present supplies of these materials will be insufficient for defense and essential civilian requirements;

Now, therefore, it is hereby ordered that:

1015.1 *General Limitation Order*

(a) *Definitions.* For the purposes of this order:

(1) "Person" means any individual, partnership, association, corporation or other form of enterprise;

(2) "Supplier" means any manufacturer, converter, jobber, dealer, printer and other person who directly or indirectly delivers cellophane or similar transparent materials derived from cellulose, to the users enumerated in (b) hereof, or to any other users.

(b) *Restrictions on Use.* Subject to the provisions of (d) hereof, no person shall use cellophane or similar transparent materials derived from cellulose for packaging or manufacturing of the materials included in the following categories:

Razor blades, cosmetics and soaps, textiles, rubber and rubber products, except for use as a substitute for holland cloth in the backing of retreading stocks for tires, hardware, metals and sporting goods, paper and paper products, laundry, candles and wax products, electrical equipment, except the manufacture thereof; decorations and novelties, including molded paper hats, molded Christmas bells, molded flower pot covers, bows and rosettes, flowers, wreaths and garlands, soda straws, ribbons, household rolls and gift wrappings.

(c) *Restrictions on Deliveries.* No supplier shall knowingly, directly or indirectly, deliver or cause to be delivered any cellophane or similar transparent material derived from cellulose, and no person shall accept the same, to be used for packaging or manufacture of any of the materials listed in (b) hereof.

(d) *Non-applicability to Existing Stocks.* The terms of (b) hereof shall not apply to stocks of cellophane or similar transparent materials derived from cellulose in the hands of users at the date of issue of this order, and the terms of (c) hereof shall not apply to stocks of cellophane or similar transparent materials derived from cellulose in the hands of suppliers and which have been heretofore so cut, processed, or printed as to render impracticable use by persons other than those prohibited from using such materials under (b) hereof. Provided, however, that all such stocks shall be used in packaging or manufacture, as the case may be, within sixty days of the date of issue of this order.

(e) *Notification of Customers.* Any person who is prohibited from, or restricted in, making deliveries of cellophane or similar transparent materials made from cellulose by the terms of this order shall, as soon as practicable, notify each of his regular customers of the requirements of this order, but the failure to give such notice shall not excuse any customer from the obligation of complying with the terms of this order.

(f) *Effective Date.* This order shall take effect on the date of issuance thereof and shall continue in effect until revoked by the Director of Priorities subject to such amendments or supplements thereto as may be issued from time to time by the Director of Priorities.

(g) *Violations.* Any person who violates any provision of this order may be prohibited by the Director of Priorities from obtaining any further deliveries of materials subject to allocation, and the Director of Priorities may also take any other action deemed appropriate.

(P. D. Reg. 1, Aug. 27, 1941, 6 F. R. 4489; O. P. M. Reg. 3, amended Sept. 2, 1941, 6 F. R. 4865; E. O. 8629, Jan. 7, 1941, 6 F. R. 191; E. O. 8875, Aug. 28, 1941, 5 F. R. 4483; Sec. 2(A), Public No. 671, 76th Congress, third session, as amended by Public No. 89, 77th Congress, first session; Sec. 9, Public No. 783, 76th Congress, third section.)

Issued this 8th day of November, 1941.

DONALD M. NELSON,
Director of Priorities.

F. D. A. OPINIONS

"Your attention is directed to the recent work which has been done with chorionic gonadotropin which clearly indicates that a preparation such as this cannot be relied upon to bring about the maturation or follicles and ovulation in women. The proposed leaflet which is to be furnished to physicians upon request should clearly and unambiguously point this out for the benefit of the practitioner who is to use your preparation."

"This application is incomplete with respect to section 505(b) (3) in that you have not indicated the quantity of vanillin which your product contains. This ingredient was listed as a component of the drug in part II of the application. To complete the requirements under section 505(b) (4) it will be necessary for you to provide a detailed description of the manufacture of this product and a full description of the facilities and controls used in connection therewith. For example, you should state which of the ingredients of this preparation you test for identity, strength and purity in paragraph 1 of Part 4. In paragraph 2 you should state whether a serial number is given to this preparation. In paragraph 8 you should state just what assays will be carried out with respect to this product. Under section 505(b)(6) you should provide 5 copies of proposed labeling for the drug. Until the application has been completed in duplicate with respect to section 505(b)(3)(4) and (6) of the Federal Food, Drug, and Cosmetic Act, it may not be filed with the Administrator for consideration. We note that you intend to use a 'caution statement' to avail yourself of the exemption under section 502(f) in place of supplying adequate directions for use. In view of this fact, we feel that it will be necessary to prepare a brochure for the physician so that he may be informed of the indications and methods of use which might be appropriate for a preparation of this kind. When this brochure is provided it may become necessary to give reports of investigations under section 505(b)(1) which have been made to show whether or not the drug is safe for use under the conditions which you may recommend."

MERCHANDISING NEWS and PACKAGING NOTES

THE COSMETIC TREND: There has not been any great reaction from the point of view of sales to the new cosmetic tax. In the big cities there was a heavy pre-tax sale but the drop which followed was not great and sales volume continues at a high level. Stores report no difficulty in collecting the tax. Cosmetic displays have been re-arranged in some cases assembling taxable articles for the sake of easier supervision while signs tell the customer of the new tax. Buyers are watching the consumers' reaction nevertheless. Ten per cent., added to the cost of a cosmetic disturbs accustomed price levels. It moves a $1.25 lipstick near the dollar and one-half price grouping. Will customers be willing to pay that much or will they prefer to buy a one-dollar lipstick, costing now only $1.10 with the tax?

However, buyers are really much more interested just now in the merchandise itself than in its price. Any information that can be had from the manufacturer is most carefully listened to or read. Retailers are confident that there will not be any real shortages on their cosmetic counters but they have hardened themselves against possible changes in the character and appearance of the merchandise. Customers also have been well prepared in the meantime for an unusual shortage in the variety of shades of lipsticks, rouges, hair rinses, etc.

Deliveries of Christmas merchandise, ordered earlier in the year, should be fairly normal. There will be delivery delays, however, in the case of last minute orders and some may never arrive in time for the sales season. Manufacturers are running short of packaging materials, and this condition certainly will not improve with time.

No real novelty developments are expected for the coming spring season but there will be enough novelty appeal in the regular run of cosmetic supplies to make the counters interesting for the consumer. The appearance of many articles will be changed, new scents are introduced to replace those which become rare, synthetic materials take the place of metals. It all gives the retailer something to talk about.

VITAMINS FOR EVERYONE: There was considerable gratification a few weeks back over the fact that the A. M. A. "Journal" had been a victim of poor timing. Just about the time that the "Journal" was complaining editorially about the fact that there was a lot of money in the vitamin business and that vitamins were too high in price, Hi-V Vitamins went on sale, in Woolworth stores at 25 cents for a 16-day supply and 50 cents for a 36-day supply. The "Journal" went on to say that you get all the vitamins you need in a well-balanced diet, but didn't go on to say just how everybody in this best of all possible worlds is to get hold of this w. b. diet, or in a great many cases, even under peacetime conditions, any diet at all. And even those of us who are well fed, like us and Dr. Fishbein, must admit that, while the price of food is advancing by rather startling percentages, even when not well balanced, the price of vitamins to the consumer is coming down even more rapidly.

The Hi-V product is the first well-promoted one which brings the price within the reach of the masses and, so far as we are concerned that's all to the good. Apparently they're going over pretty well, for after a start in three stores, Woolworth has now added several others including several in mid-town New York, with

open demonstrations and what Woolworth calls very satisfactory sales. The chances appear good that the whole chain will take them on as will other syndicate stores.

Hi-V is manufactured by Miller Laboratories, Cleveland, which produces other brands for other companies, and is interesting for the fact that it is one of the two companies which owns a satisfactory capsulating process and machine for carrying vitamin concentrates in uniform gelatine spheroids. It is also interesting for the fact that American Home purchased the company a while back.

But to return to Hi-V, the company through an affiliate, Applied Merchandising, Inc., advertises these vitamins as "Vitamins for Everyone at a Price Everyone Can Afford." Each capsule contains 6,250 U.S.P. units Vitamin A, 350 Int. units B_1, 300 U.S.P. units C., and 625 units D.

SEX APPEAL: An eau de cologne called "Gazette" which was introduced in New York by R. H. Macy & Co., New York, makes no bones about a completely flamboyant "sex" appeal! Copy on the back of the label reads, "Why be lonely? Romance will come to you with Gazette! This lingering, alluring fragrance is all that is needed to help you attract and hold your heart's desire. Be the leading lady in your own love affairs." The label itself has the old "Gazette" atmosphere which is repeated on the box, carrying additional copy: "Make new friends—attract a rich husband. Ladies! Remember! A man is led 'by his nose'—Throughout nature the questing male follows the scent! Man's oldest instinct unerringly guides him to his mate. Modern girls—make this ancient secret your own, use 'Gazette'—realize to the full the powder of your feminine appeal. This strangely irresistible fragrance will add a subtle enchantment to your personality. While the potent persuasion of the perfume is felt by all, its delicacy and genteel charm assures the discreet user of a selection among the refined, worthwhile and often wealthy new friends!"

That's wowing them—and all for the price of one dollar!

"LOVE POTION:" Charles of the Ritz candidly names its new scent "Love Potion," and describes it as "a wonderfully come-on fragrance," more elusive than

a perfume, but much more potent than a toilet water. "Love Potion" comes in a crystalline bottle that suggests the shape of little 18th Century busts of Cupid topped with a stopper in the form of a Cupid's head with wings in gilded glass. The bottle stands in a tall oval satin box of red on which masked cupids play. Eight ounces of this "sweet yet spicy" fragrance sells for $10.

CONSERVATION NOTE: To conserve its supply, R. H. Macy & Co. is offering 5c credit or cash for the return, in good condition, of every pink plastic bottle top or complete plastic container of its Little Shop toiletries. The offer is good in the Manhattan, Parkchester and Syracuse stores.

REVLON AND MORALE: Revlon is apparently among the first of the cosmetic manufacturers to emphasize the importance of cosmetics to morale in its advertising. The heading is, "Morale is a Woman's Business" and the copy goes on to say that: "Every time you listen to war news on the radio, you think, 'How can I do more to help?' You go to First-Aid classes. You spend hours at the Red Cross.

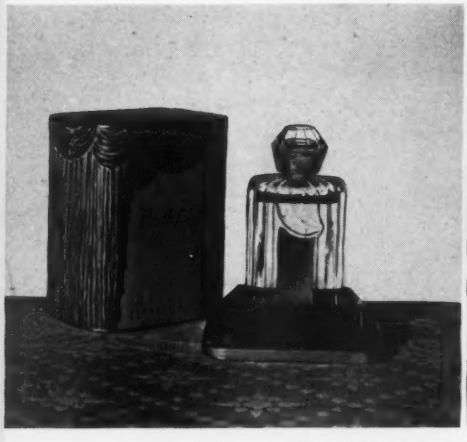
"And still you feel a little apologetic because you're only a woman. You even feel guilty when you take time off for feminine things like buying a new hat or getting your hair done. But, have you forgotten that small, terribly important word Morale? Have you forgotten that morale is a woman's business, now, more than ever? The way you look affects so many people around you . . . your family, your friends, even strangers who pass you in the street. To them, a woman's beauty stands for courage, serenity, a gallant heart . . . all the things that men need so desperately these days. So the time spent in your favorite beauty salon every week isn't selfish or frivolous. It's part of your job of morale. It's a woman's way of saying we won't be beaten.

"So phone for your beauty salon appointment now!"

GERMAINE MONTEIL

SALLY VICTOR

COUTURIERS PERFUMES, IN

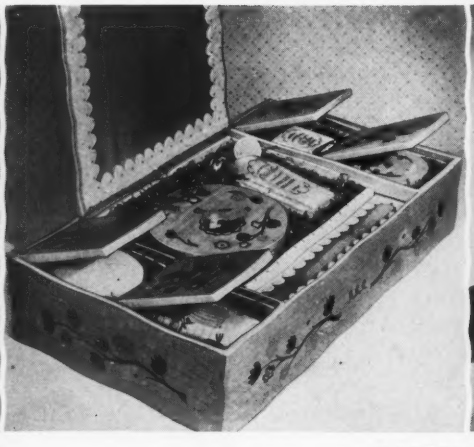


FRANCES DENNEY

JACQUELINE COCHRAN

DORALDIN

HILL HOUSE



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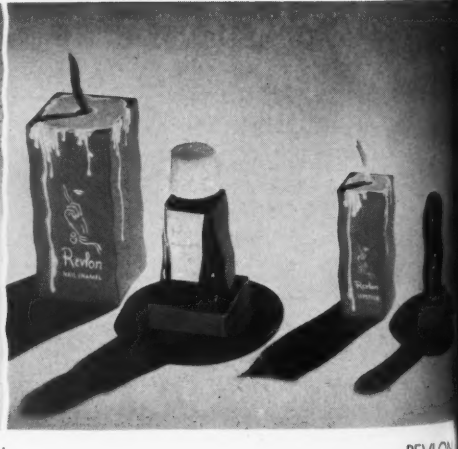

REVLON

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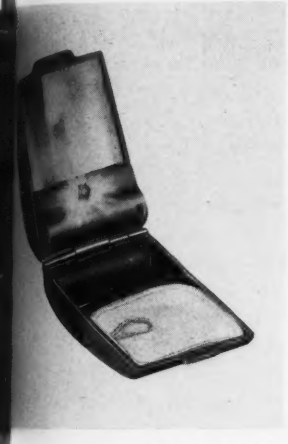


EDMILTON CORP.

NUTRITION RESEARCH LABS.

GERMAINE MONTEIL

Germaine Monteil introduces her first perfume—a gay, warm, heady, fragrance with a gay name—"Laughter." The bottle Laughter is presented in is streamlined, modern, with a beautifully cut stopper.

SALLY VICTOR

Sally Victor, well-known milliner, presents Sally Victor Essence, packaged in bottles that have polished wood stoppers tied with a little bow of bluebonnet blue. There is a soap in the same blue shade, and a body sachet in a box with wooden beribboned knob. Bath oil completes Sally Victor's introductory collection. Package design by von Miklos.

COUTURIERS PERFUMES, INC.

Couturiers Perfumes, Inc. presents the second of its fashion conscious fragrances, "Tricot," the companion scent for jersey and knits.

HELENA RUBINSTEIN

Helena Rubinstein's Apple Blossom hand lotion is the newest addition to the Apple Blossom sequence.

ROSE LAIRD

Rose Laird augments the line with several delightful bath luxuries. There are Laird essences in three odors: "Mountain Zephyr," a spicy, woodsy fragrance; "Exquisite," a floral, and "Jeunesse," sweet and fresh. Bath powder, bath soap, bath oil essence, and bath suds, complete the series.

FRANCES DENNEY

Frances Denney's new perfume is "Night Life," a spirited perfume to wear with sophisticated after-dark fashions. The perfume is presented in a beautifully simple, modern designed bottle.

JACQUELINE COCHRAN

Jacqueline Cochran's cosmetic line now includes two men's items: Pine bath bouquet (6 oz.) with pine bath soap, or three cakes of pine bath soap. Both gifts are packaged in attractive mahogany-grain boxes.

DORALDINA

Gay, feminine, practical, is the new Doraldina kit in figured satin with rubberized lining. The cleansing cream, freshener and Allura are held in separate pockets.

EDMILTON CORP.

"Firefly," the illuminated plastic compact, has been announced by the Edmilton Corp. Firefly is offered in a choice of five colors (black, ivory, blue, green, red) in contrasting stripes, and is paneled for three initials. A small 1.1 volt bull's-eye bulb and a 1.5 volt Penlite battery provide the illumination.

RICHARD HUDNUT

Richard Hudnut's DuBarry body powder appears in a new pink plastic box that can be kept and refilled over and over again. There is a decorative "B" for DuBarry on the lid and a gigantic wool puff.

HILL HOUSE

Hill House offers Strawberry Spice Sachets, bright red velveteen berries, with hand embroidered green leaves and a flexible stem. They come packed in real strawberry boxes on a bed of lace net, covered with cellophane, tied around with a bright green ribbon.

SHULTON

Shulton's new vanity box, adapted from an antique jewel case, combines luxury with practicality. Five compartments hold a complete assortment of Old Spice toiletries. Mirrored lid and red velvet pincushion increase the effectiveness of this wood veneered box as a permanent dressing table accessory.

REVLON

For the last minute shopper and her plea for something good but not expensive, Revlon has packaged its nail enamel and harmonizing lipstick in red candle boxes. Ideal as stocking fillers and extra gifts.

NUTRITION RESEARCH LABS.

A new economical package of 100 capsules of Bezon, the whole natural Vitamin B Complex, is offered by Nutrition Research Labs.

McKESSON & ROBBINS

McKesson & Robbins has announced a gift box for men known as the American men's set. The set has a distinctive military quality and contains an interesting label illustrating the air arm of the defense services. It comes in red or blue and contains Calox tooth powder, McKesson's shaving cream, shaving lotion, brushless shave and Brace hair lotion.

ROSE LAIRD

RICHARD HUDNUT

McKESSON & ROBBINS

COPYWRITERS' DISEASES: An Advertisement for Iodex appearing in an Australian paper vindicates that long suffering wretch, the copywriter. It proves that they do not all think alike, that the same words do not come out each time you turn the same crank. For example and to wit: In Australia, so the copy informs us, it is known as surfer's foot, in America athlete's foot; in Europe, tinea; in Honolulu, Waikiki itch; and in China, Honkong foot. No matter what it is or where it is, trust the copywriter to have a word for it.

WARTIME DEALER ADVERTISING: Yardley Heads its current dealer advertising in England, "Why We Still Advertise." The copy goes on to say that "Many say why advertise when there are not enough goods to sell. Those who have read and noted our advertising have the answer. 1. The public must be told that the shortage of supplies is not the fault of the trader. 2. The public must be informed that the purchase of quality goods is an economy because they last longer. 3. The public must be reminded that Yardley will remain the synonym of high-class, quality perfumery, cosmetics and toilet goods."

BOURJOIS uses its advertising in retail papers to say, "The present-day emergency demands that the country's man power shall be used to the best advantage. Several of our representatives are already on active service in the Forces and we have now decided to release the others for work of more vital importance.

"Obviously, the sale of the limited production now permitted is far from a full-time job, and our loyal representatives fully appreciate the opportunity of engaging in more useful employment from the national point of view. We shall continue to look after their financial welfare as far as may be necessary and shall give them a hearty welcome on their return to the fold when peace is declared.

"Our best endeavours will be exercised to the end that you, our esteemed friends in the trade, are not inconvenienced. Contact will be maintained and service rendered by various means. You will be interested to learn that despite the destruction of two factories we are again in full production of perfumery and fine toilet soaps—ready to meet all demands made upon us within the limits of our abridged catalogue and the quota.

"We shall be grateful for your co-operation in the sense of exercising patience and understanding when we are not able to meet your requirements fully or unavoidable delays occur. For our part we shall continue to keep our products before the public by consistent reminder advertisements, and do our best to maintain the reputation for quality and service that the House of Bourjois has always enjoyed."

ASPIRIN LEDERLE: It's quite unusual these days for anyone to enter the aspirin market, so that many witnessed with surprise the entry of Lederle into this market. Lederle says that at the moment a household line is not contemplated, that obviously it adds nothing to their sales costs to add aspirin to the line, and that they just liked the tin container so much that they are rather expecting that it may be a potent sales help.

The tin has a dispensing feature which permits it to deliver one aspirin at a time and the trade advertising which has been started devotes about three-quarters of the space to talk and drawings calling attention to this feature. A small box also offers a beautiful plastic counter display to dealers free with orders for three dozen boxes.

NEWCOMERS: Sally Victor, well-known milliner, has decided to try her hand in the cosmetic field. Her introductory collection includes "Essence" in four sizes, soap, body sachet and bath oil. All the packaging is done in a shade of orchidy blue, which Sally Victor calls "Bluebonnet Blue." The bottles have unusual polished wood stoppers, and each one carries its little bow of Bluebonnet Blue.

Another newcomer is Germaine Monteil's "Laughter." This is the first perfume to be introduced by the house. It is a gay, warm, heady fragrance, presented in a streamlined, modern bottle topped with a cut stopper, which gives it the over-all effect of a tall, graceful column.

Couturiers Perfumes, Inc. presents the second of its fashion conscious fragrances, "Tricot," the perfect companion scent for jersey and knits. Tricot is a captivating odor, packaged in one of the season's newest color schemes—brilliant flame, emerald and white swatches on sleek black background.

Picture of a successful package

EVER hear of a man named Epeius? Fellow who lived about 3000 years ago? He was quite a packaging expert.

Epeius created one of the most successful packages in all history—the Trojan Horse. The Trojans found a big handsome wooden horse outside their city, and just couldn't resist dragging it in. Later they found it was full of Greek soldiers.

Anyone interested in packaging could pick up a few pointers from the story of the Trojan Horse.

It was a successful package because it was made to fit a specific need. It was a practical package, too. Plenty of imagination went into it, yet it protected the contents and was easy to fill (and empty!). Did it have eye appeal? The Trojans thought so.

Developing successful packages for businessmen is Continental's business.

For 36 years we have been helping manufacturers find the right package for their product and adapt it for their specific needs. Our packaging experts have a wide variety of styles, shapes and sizes to meet every demand, no matter what the product may be. All are consumer-convenient.

A lot goes into the making of a successful Continental package. Creative design ideas, skillful lithography, scientific research, well equipped laboratories, and sound merchandising.

Have *you* any packaging problem? Color? Design? Breakage? Shipping? Perhaps we can help. Just call for Continental.

CONTINENTAL CAN COMPANY

New York Chicago San Francisco Montreal Toronto Havana

Du Pont Aromatics

FOR PERFUMES AND COSMETICS

Alcohol C-8
Alcohol C-10
Alcohol C-12
Alpine Violet
Amyl Salicylate
Anisic Alcohol
Astrotone
Aubepine Liquid
(Anisic Aldehyde)
Benzophenone
Benzyl Acetate
Benzyl Alcohol
Bergamot Artificial
Citral
Coumarin
Dimethyl Anthranilate
Dimethyl Hydroquinone
Geraniol
Geranium Artificial
Geranyl Acetate
Hyacylene P and S
(Dimethyl Acetal of Phenyl
Acetaldehyde)
Indole
Iso Amyl Benzyl Ether
Isobornyl Acetate
Lavender Synthetic
Methyl Anthranilate
Methyl Para Cresol
Methyl Rhodione
Mugol (Dimethyl Acetal of
Hydroxycitronellal)
Musks, Artificial
Rhodione
Terpineol
Terpinyl Acetate

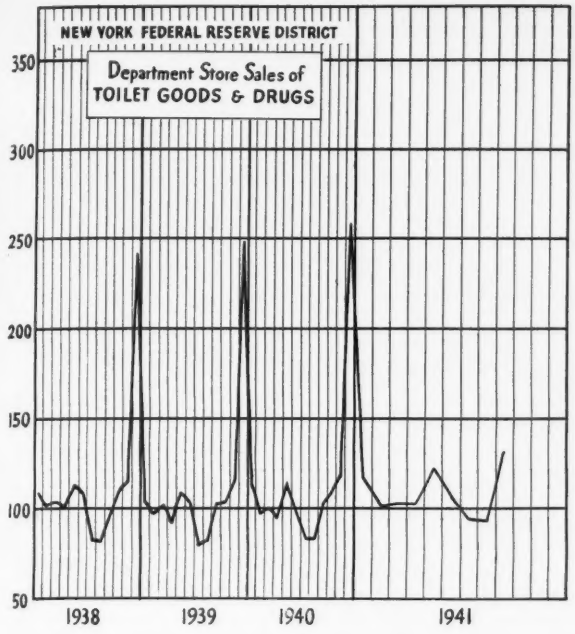
● We welcome your inquiries for aromatic chemicals, including those listed above. The many Du Pont manufacturing facilities are constantly being expanded to provide a uniform high quality and a dependable source of supply. Why not standardize on Du Pont chemicals?

DU PONT
REG. U.S. PAT. OFF.

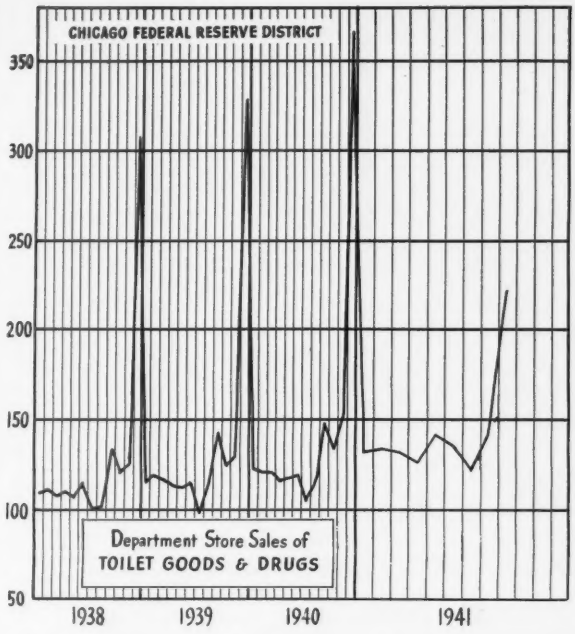
E. I. DU PONT DE NEMOURS & CO. (INC.)

ORGANIC CHEMICALS DEPARTMENT, FINE CHEMICALS DIVISION
WILMINGTON, DELAWARE

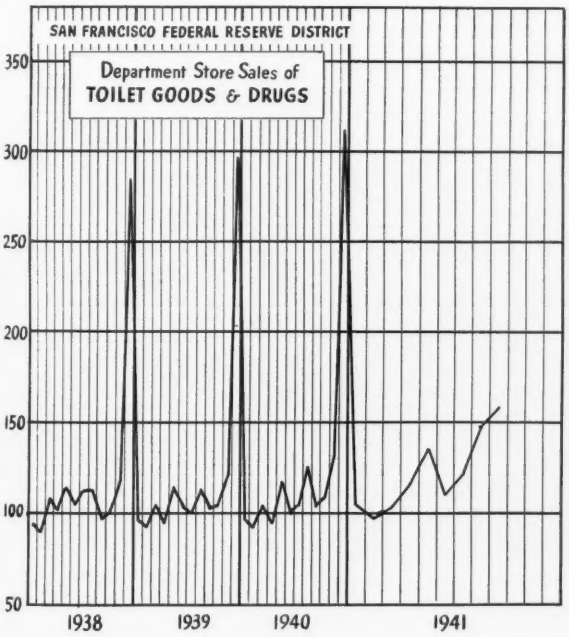
40 WORTH STREET, NEW YORK CITY **7 SO. DEARBORN STREET, CHICAGO, ILL.**



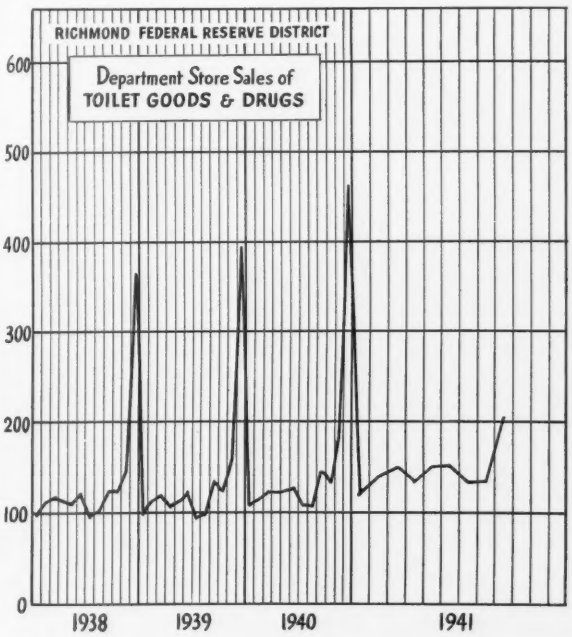
Sales of toilet articles and drug sundries by department stores in the New York Federal Reserve District in September 1941 were 30 per cent. greater than in the same month of 1940. This corresponds to unadjusted index numbers of 131.7 for September 1941, 93.4 for August 1941, and 101.3 for September 1940.



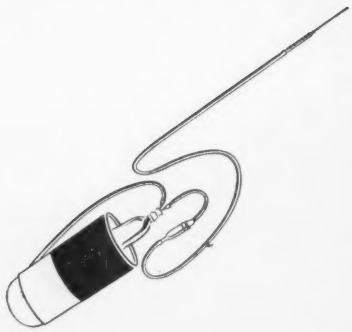
Sales of toilet articles and drug sundries by department stores in the Chicago Federal Reserve District were 50 per cent. greater in September 1941 than in September 1940. This corresponds to unadjusted index numbers of 221.6 for September 1941, 141.8 for August 1941, and 147.7 for Sept. 1940.



Sales of toilet articles and drug sundries by department stores in the San Francisco Federal Reserve District were 53 per cent. greater in September 1941 than in the same month of the preceding year. This corresponds to unadjusted index numbers of 158.7 for September 1941, 147.7 for August 1941, and 103.7 for September 1940.



Sales of toilet articles and preparations by department stores in the Richmond Federal Reserve District were 41 per cent. greater in September 1941 than in September 1940. This corresponds to unadjusted index numbers of 205.4 for September 1941, 136.1 for August 1941, and 145.7 for Sept. 1940.



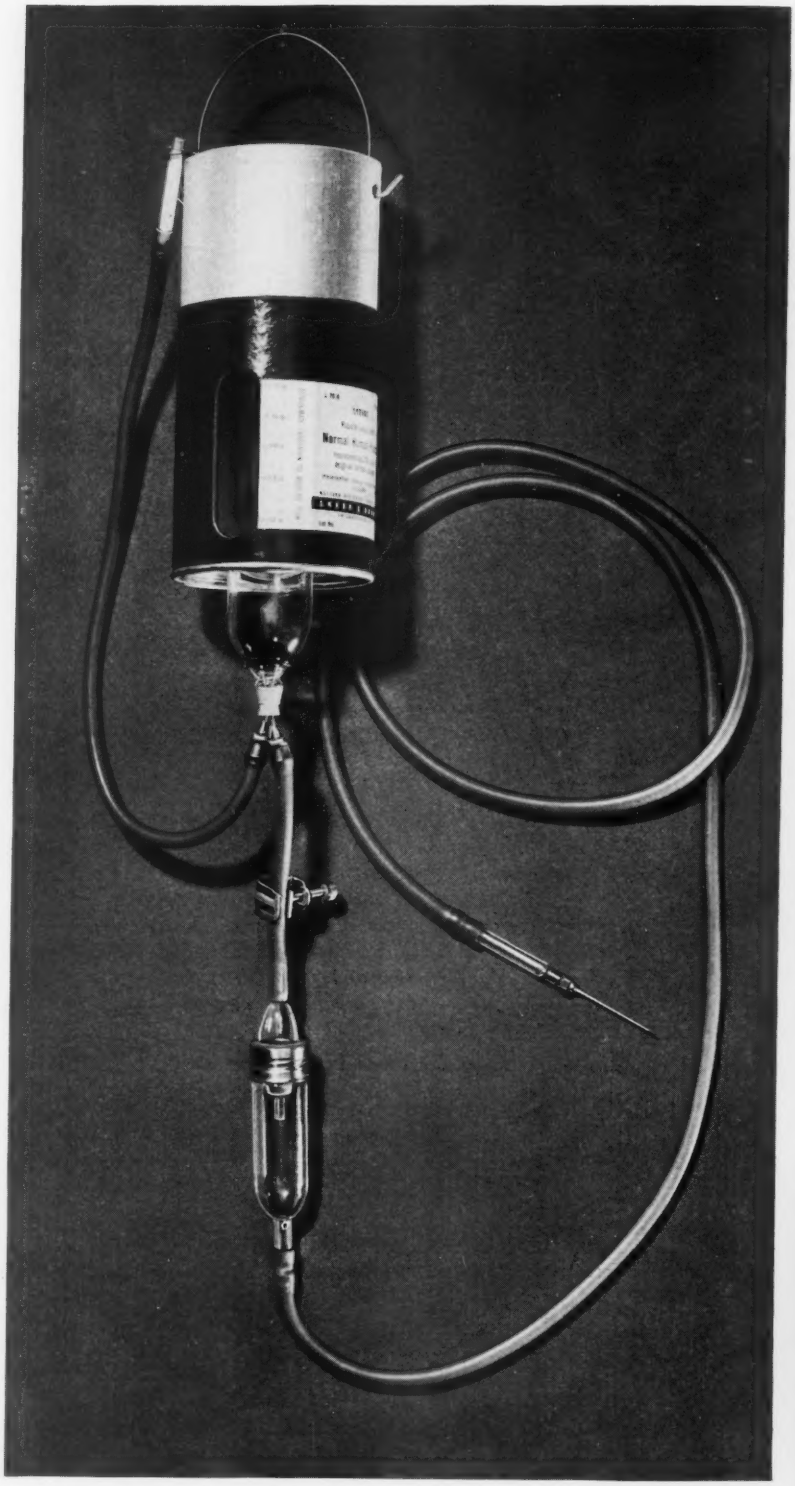
WEAPONS FOR LIVING

METAL PARTS FABRICATED BY SCOVILL

In normal times, Scovill advertising has always featured the vanity cases, lipstick containers and closures for which Scovill has been a prime source. But Scovill was also an important fabricator of metal parts used by pharmaceutical and biological houses.

Many of our customers are currently making products for National Defense, and Scovill is still their source of supply for metal parts. With facilities for a wide range of metal part production, Scovill can turn its hand to clamps and metal caps for blood plasma sets, and finger rests, plunger rods or turned parts for hypodermic syringes, with the same efficiency as it produces cosmetic container items.

If you are using or considering metal parts in quantity for defense work, ask Scovill about making them.



Scovill fabricates metal parts for human blood plasma units supplied by Sharp & Dohme

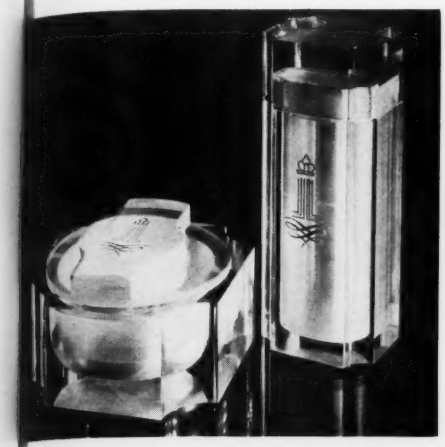
Scovill
MANUFACTURING COMPANY
WATERBURY, CONN.

A "MASTERS OF METAL" booklet outlines these Scovill facilities in some detail. We'll gladly send a copy on request. Address 69 Mill Street, Waterbury, Connecticut.

Boston, Providence, New York, Philadelphia, Syracuse, Pittsburgh, Chicago, Cincinnati, San Francisco, Los Angeles
IN CANADA: 334 King Street, East, Toronto, Ontario

LENTHERIC

Lentheric's de luxe shaving duo consists of a shaving bowl and after shave powder container in gleaming, crystal-clear plastic, decorated with the Lentheric insignia in gold. This handsome durable duo is very practical too, since the containers are refillable.



LENTHERIC

DERMETICS

The Dermetics week-end kit is a practical, small case, convenient to tuck away in the corner of an overnight bag. It holds Soil Adsorbing, a method of cleaning; complexion dress; nite emollient; hand dressing, and an empty bottle to be filled as one pleases. The pink lining enhances this lovely kit.

DERMETICS

HOUBIGANT

Houbigant introduces a de luxe gift presentation of its Translucid make-up. Complete array includes Translucid foundation lotion, face powder, rouge, lipstick and eau de cologne. The beautiful silk-lined slide drawer box is decorated with gold mask and flower design on pastel pink background.

HOUBIGANT

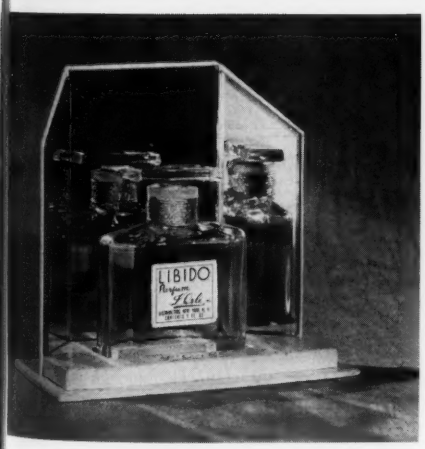
PRIMROSE HOUSE

The Primrose House salon package makes a distinctive gift ensemble. Forget-Me-Not cologne, bubbling bath, hand soap, dusting powder, atomizer, 3 sachets, and face tissues are all ensembled in an exquisite "glass box" that can be used as a dresser container.

PRIMROSE HOUSE

PARFUM L'ORLE

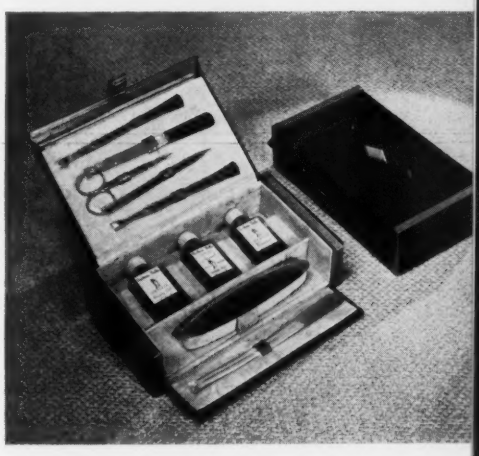
"Libido," the word which means the height of human emotion, has been chosen by Parfum L'Orle as the name of its newest perfume presentation. The unusual fragrance comes in an elaborate package, giving a triple mirror effect as a background for the bottle.



PARFUM L'ORLE

BARBARA BATES

Barbara Bates presents the "Treasure Trove," a grand gift for luxury-loving girls. It contains manicure treasures such as: polish, polish remover, cuticle oil, cuticle scissors, nail file, Ivoree manicure stick, buffer, cuticle instruments, Smoothie. The accessories are all heavily gold-plated with an engraved design. In brown or blue bengaline trimmed in gold kid.



BARBARA BATES

NEWS

Companies

Bristol to Washington

William M. Bristol, Jr., vice-president and director of Bristol-Myers Co., has been appointed chief of the Health Supply unit of the purchasing division of the Office of Production Management in Washington.

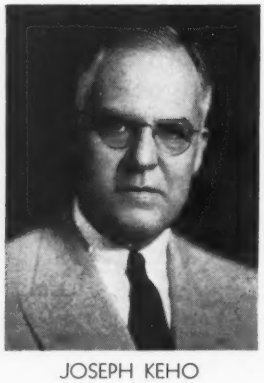
All drug industry problems pass through the Health Supplies section of OPM. Mr. Bristol will administer the health supplies rating plan of OPM under which high priority ratings are given to users of bulk medicinal chemicals and other drug products.

WILLIAM M. BRISTOL, JR.

Mr. Bristol, a World War veteran and a graduate of Hamilton College, Clinton, N. Y., has been actively associated with Bristol-Myers Co. since 1919. He became secretary and treasurer of the company in 1928 and vice-president in 1936. He has been president of the Packaging Institute and is a trustee of Hamilton College and president of the Hamilton Alumnae Association.

Keho Named President of Dorothy Gray

At the annual meeting of the board of directors of Dorothy Gray, Ltd., New York, held October 15, Joseph Keho was elected president. He has been with the parent organization, Lehn & Fink Products Corp., in the capacity of general and sales manager of the Lesquendieu division since June 1933. In January 1936 Mr. Keho became general manager of the Dorothy Gray division as well and in November 1938 he was elected vice-president of Dorothy Gray, Ltd. At the same meeting Edward Plaut, president of Lehn & Fink Products Corp., was elected chairman of the board of Dorothy Gray, Ltd.



JOSEPH KEHO

Resignations from Colgate

Hugh McKay, advertising director, Edward Longstreth, director of radio, and Harry Keller, public relations manager, have all resigned from Colgate-Palmolive-Peet Co.

Plough Appoints Gibbs

O. S. Gibbs, M.B., Ch.B., has been appointed medical research director of Plough, Inc., Memphis, it has been announced by Abe Plough, president. The company's laboratory facilities are being greatly expanded under the direction of Dr. Gibbs.

Following his graduation from the University of Edinburgh, Dr. Gibbs was appointed assistant to the late Dr. A. R. Cushny, professor of pharmacology at the University of Edinburgh. Dr. Gibbs has held the chair of pharmacology at Dalhousie University, Halifax, N. S., University of Georgia, Georgetown University and the University of Tennessee. In addition to practicing medicine in England, Dr. Gibbs has done research work at the National Institute for Medical Research of Great Britain under Sir Henry Dale, who is now president of the Royal Society. He has lectured on pharmacology at Johns Hopkins Medical School and at one time was travelling research fellow of the

O. S. GIBBS

U.S.I. ALCOHOL NEWS

November ★ A Monthly Review of Technical Developments for Chemists and Executives ★ 1941

ALCOHOL IN LIQUID DENTIFRICES

Liquid dentifrices are bidding for a larger share of the tooth preparation market, and are relying for their sales appeal largely on the desirable properties of S.D. Alcohol.

S.D. 38B Is Extensively Used In Formulating These Products

Still relatively new in the field, the liquid dentifrices appear to have plenty of opportunity to expand their market. Most of these products are formulated with the aid of alcohol, and S.D. Alcohol 38B is especially popular because the wide choice of denaturants available helps the dentifrice manufacturer to give sales appeal to his product.

Among the denaturants authorized for S.D. 38B, a mixture of oil of peppermint and oil of wintergreen is regarded as especially suitable for the manufacture of liquid dentifrices, because of the pleasing character of these essential oils. Liquid dentifrices usually also include a wetting agent and a food dye.

ETHYL ALCOHOL NOW UNDER MANDATORY PRIORITY ORDER

In order to assure the fulfilment of the constantly increasing needs of national defense, ethyl alcohol and related compounds have now been added to the already large number of chemical items on the Critical List. To conserve the supply of these chemicals, it has been found necessary to direct the distribution of ethyl alcohol (all grades and formulas), acetone, ethyl ether, ethyl acetate, butanol, and butyl acetate. Toward this end, the Director of Priorities has issued General Preference Order M-30 dated August 28, 1941. Under this mandatory order it is necessary to give preference to defense orders, which subjects all non-defense shipments to unavoidable delays.

Because of this mandatory Priority Order, U.S.I. now finds it necessary to acknowledge all orders with the proviso that defense demands make it impossible to designate definite shipping dates.

ENTERIC COATINGS MADE WITH ORGANIC SOLVENTS

Pills are easy to take when provided with a suitable enteric coating, which in many cases is made with the aid of organic solvents. Shellac dissolved in alcohol has been used in many enteric coatings, and a solution of cetyl alcohol and mastic in acetone has also been employed. Among the recently patented coatings are those making use of cellulose derivatives containing free carboxyl groups, which may be dissolved in a mixture of ethyl lactate, alcohol, and water; and polyhydric alcohol-polycarboxylic acid resins, which can be dissolved in acetone or ethyl acetate.

TECHNICAL DEVELOPMENTS

For further information, write U.S.I.

A new emulsifier, sulfonated hydrogenated castor oil, is said to be useful in the manufacture of a variety of cosmetic products. It is described as an amber-colored solid, compatible with most cosmetic ingredients and miscible with organic acids and aluminum acetate solutions. Material is available in two forms. **(No. 510a)**

A new gum can be used in the preparation of a smooth mucilage, it is claimed. A 1% solution is made by sifting the powdered gum into cold water and then heating while stirring. Although gum is imported, adequate supplies are said to be available. **(No. 511a)**

Aluminum acetate is now available in a concentrated solution that is said to be lead-free. The maker reports that the product has been thoroughly tested, and that it can be used successfully in the manufacture of U.S.P. drugs, as well as in antiperspirants and deodorants. **(No. 512a)**

Synthetic lauric acid of low titre is now available in commercial quantities, it is reported. Applications include soap making, wetting agents, cosmetics, and hair shampoos. **(No. 513a)**

A new vegetable wax is yellow-brown in color, melts at 30°C., dissolves in cold ethyl alcohol, and saponifies in cold aqueous solutions, it is reported. Wax is of the non-drying type. **(No. 514a)**

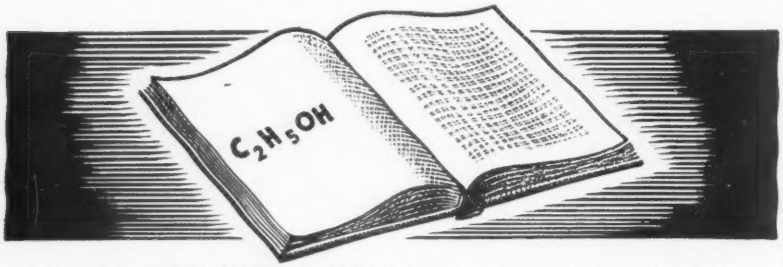
A cyclamen compound can be used for partial replacement of hydroxycitronellal, it is reported. It is of the same general character as hydroxycitronellal, but considerably stronger and blends well with it. The new compound can be used in lily, lilac, gardenia, and other odors. **(No. 515a)**

COLLODION FIXATION TEST AIDS IN STUDY OF VIRUSES

The identification and typing of disease viruses can be simplified by a novel technique involving collodion fixation, it has been discovered. The study of viruses and of diseases caused by them has been handicapped in the past by the lack of suitable test reactions for detecting very small amounts of the virus. The collodion fixation method has the unusual result, in effect, of magnifying the reaction, thus offering an identification test approximately 1,000 times as delicate as previously known reactions. Possibilities of application are believed to be very wide.

U.S.I. INDUSTRIAL CHEMICALS, INC.
60 EAST 42ND ST., NEW YORK (USI) BRANCHES IN ALL PRINCIPAL CITIES
INDUSTRIAL ALCOHOL IN ALL GRADES AND ALL FORMULAS

THE ALCOHOL PRIMER



NO. 7 OF A SERIES ON THE SELECTION AND USE OF INDUSTRIAL ALCOHOL

S.D. ALCOHOL 31A

(Note: This column is presented as an informative service for readers in the cosmetic, pharmaceutical, and related industries. As announced on Page 1 of this issue of U.S.I. ALCOHOL NEWS, all formulas of ethyl alcohol are now under mandatory priority, which may limit the quantities of alcohol available at the moment for the applications described in this column.)

S.D. Alcohol 31A offers an excellent illustration of the correlation between the authorized composition and authorized uses of the S.D. formulas. S.D. 31A is authorized for use as a solvent in manufacturing:

Face and hand lotions
Tooth paste and tooth powder
Shampoos
Toilet soaps and bath salts
Disinfectants, insecticides, etc.

Authorized Composition

According to the authorized composition, S.D. Alcohol 31A is prepared by adding to 100 gallons of ethyl alcohol 100 pounds of glycerin, U.S.P., and 20 pounds of hard soap of a good toilet grade, containing not in excess of 5% of moisture.

It will be noted that the denaturants specified are materials which are very frequently used as ingredients in manufacturing the products listed under authorized uses. For example, in the manufacture of tooth paste, a vehicle consisting of alcohol, glycerin, and water has proved highly successful. Many tooth paste formulations also include soap, which acts as a combined polishing, foaming, and binding agent.

On the other hand, there are tooth paste formulations in which the makers prefer not to use soap or glycerin. While preparations containing soap are popular with many users, the use of soap has been a matter of some controversy. Glycerin, too, may sometimes be replaced by a glycerin substitute such as sorbitol. For formulations of this type, of course, S.D. 31A would not be suitable, but there exist many other formulas authorized for use in tooth paste, which include other desirable ingredients, such as essential oils. By familiarizing himself with the various formulas authorized for use in his product, the manufacturer can readily select the one best adapted to his specific requirements.

In Lotions and Shampoos

In face and hand lotions also, S.D. 31A can be used to supply at least part of the soap and glycerin frequently used as ingredients. The alcohol itself plays an important role in products of this type by accelerating the rate of evaporation and eliminating the clammy feeling that might otherwise result when the lotion is applied to the skin.

The majority of shampoos are essentially soap solutions in water, with alcohol and glycerin added, and here also the usefulness of S.D. 31A is obvious.

As pointed out in previous articles in this series, the maker of a specific type of product in the cosmetic field can usually choose from among a number of S.D. formulas. Most of these formulas, like S.D. 31A, contain denaturants which can be used as part of the ingredients needed in the complete product formulation. When a manufacturer changes from one authorized formula to another, it may be necessary for him to adjust the percentages of the other ingredients in his formula.

HERE AND THERE

Out-of-doors seems to have been the key to most of the trends in the cosmetic industry during the autumn weeks, with every indication of maintaining its position for a while. Pine odors have been attracting increased attention for some time, and at least one leading manufacturer of perfume materials is now offering a complete line of pine scents for powders, bath salts and bath oils, soaps, lotions, and colognes. The growing interest shown by men in toiletries may have been responsible for part of the pine vogue, but indications are that women react favorably to pine also, particularly in bath soaps and oils. Pine scents are described as blending well with such other odors as rose and geranium to produce unusual effects. Of no little importance, under present conditions, is the fact that pine materials are reported to be more readily available than many other perfume materials.

Trends in Make-Up

The outdoor note appears to have had its effect also on choice of make-up tones. Manufacturers of lotions that simulate a natural tan were agreeably surprised this year to find their products still commanding good sales long after the close of the normal season. Cue lies in fashions in clothes, which are best complemented by fairly dark make-up. Effects of the trend will probably be noticed also in face powder, lipstick, rouge, and nail polish.

Uses for Fatty Acid Esters

Broad applications for fatty acid esters of the lower aliphatic alcohols are envisaged in a recent patent. Special advantage of the esters is that they are readily soluble in alcohol, and hence can be easily incorporated in alcoholic lotions that spread smoothly over the skin, forming a very thin, pliable film, without any objectionable feeling of oiliness. Ethyl oleate is suggested as one of the most useful of the esters of this type.

It is possible, the inventor points out, to incorporate perfumes or medicaments in the lotions, and glycerin and water can be added if desired without causing separation of the mixture. By proper selection of ingredients, it is possible to use alcoholic solutions of ethyl oleate or other esters for the preparation of hand lotions, antiseptic lotions, and products for treating affections of the skin, such as acne or athlete's foot.

U.S.I. INDUSTRIAL CHEMICALS, INC.
60 EAST 42ND ST., N.Y. BRANCHES IN ALL PRINCIPAL CITIES
A SUBSIDIARY OF U. S. INDUSTRIAL ALCOHOL CO.

ALCOHOLS
Amyl Alcohol
Butanol (Normal Butyl Alcohol)
Fusel Oil—Refined
Methanol

Ethanol (Ethyl Alcohol)
Specially Denatured—All regular and anhydrous formulas
Completely Denatured—all regular and anhydrous formulas
Pure—190 proof, C.P. 96%, Absolute
U.S.I. Denatured Alcohol Anti-freeze
*Super Pyro Anti-freeze
*Solox Proprietary Solvent
*Solox D-1 De-icing Fluid

***ANSOLS**
Ansol M
Ansol PR

ACETIC ESTERS
Amyl Acetate
Butyl Acetate
Ethyl Acetate

OXALIC ESTERS
Butyl Oxalate
Ethyl Oxalate

PHTHALIC ESTERS
Amyl Phthalate
Butyl Phthalate
Ethyl Phthalate
*Registered Trade Mark

PROPIONIC ESTERS
Amyl Propionate
Butyl Propionate

OTHER ESTERS
*Diatol
Ethyl Carbonate
Ethyl Chloroformate
Ethyl Formate
Ethyl Lactate

INTERMEDIATES
Acetoacetanilide
Acetoacet-ortho-anisidide
Acetoacet-ortho-chloranilide
Acetoacet-ortho-toluidide
Acetoacet-para-chloranilide
Ethyl Acetoacetate
Ethyl Benzoylacetate
Ethyl Sodium Oxalacetate

ETHERS
Ethyl Ether
Ethyl Ether Absolute—A.C.S.

OTHER PRODUCTS
Acetone
*BK-5
Collodions
*Curbay B-G
*Curbay Binders
*Curbay X (Powder)
Derex
Ethylene
Ethylene Glycol
*Indalone
Methyl Acetone
Nitrocellulose Solutions
Potash, Agricultural
Urethan
*Vacatone

Rockefeller Institute at the Pharmakologisches Institut at Vienna.

Dr. Gibbs is a member of many scientific societies and is the author of numerous research publications, including papers in Renal and Ureteral Functions; Blood Coagulations; Humoural Transmission of Nerve Impulse; Artificial Heart; Quinine; P-phenelinediamine; Poisoning; Mercury, and Morphine.

Trottner Joins Marine Labs.

Otto J. Trottner, technical director, Marine Laboratories, Inc., ointment manufacturer, Brooklyn, N. Y., has

OTTO J. TROTTNER

been appointed vice-president in charge of production and control. Dr. Trottner was formerly control chemist for E. R. Squibb & Sons.

Dow Magnesium Award

The recovery of metallic magnesium from sea water at Freeport, Texas, by the Dow Chemical Co., Midland, Mich., has been selected as the outstanding chemical engineering achievement since 1940. Professor Alfred H. White, head of the chemical and metallurgical engineering division of the University of Michigan, was chairman of a committee of forty representing chemical engineering departments of universities which made the selection.

The award which is made each year by *Chemical and Metallurgical Engineering*, will be presented at a dinner in New York December 2 in connection with the National Exposition of Chemical Industries at Grand Central Palace.

Londoner Joins Premo

Premo Pharmaceutical Laboratories, Inc., New York, has announced that Jesse C. Londoner has been made director of its professional service. He is in charge of the new Premo detail staff which is promoting the sale of Premo ethical specialties to physicians.

Mr. Londoner was formerly New York branch manager for Lederle Laboratories, Inc.

Ferguson Joins Naugatuck Chemicals

Ralph M. Ferguson, with St. Lawrence Chemical Co. for several years has been appointed sales manager of the recently organized Naugatuck Chemicals, Ltd., Elmira, Ontario. He will maintain headquarters at Elmira and a sales office in Montreal.

Merck Opens Laboratory

Merck & Co., Rahway, N. J., has announced the opening of its new building to house the company's analytical laboratories. The building contains modern equipment and facilities for controlling the quality, purity and uniformity of more than 1,500 products used by the professions and industry, many of which are important in the Government's programs of public health and national defense.

The new analytical laboratories are operated by the control division of Merck & Co., which is under the supervision of Dr. Joseph Rosin, vice-president and chemical director. The analytical laboratories are under the direction of Dr. R. R. Foran. In these laboratories a large staff of specially trained chemists is responsible for testing all raw materials, ingredients, finished products, packages and containers.

Bertoli Joins McK. & R.

Leonard J. Bertoli, formerly sales manager of American Druggists Syndicate, New York, has been appointed sundries manager of McKesson & Robbins, Inc., at Los Angeles.

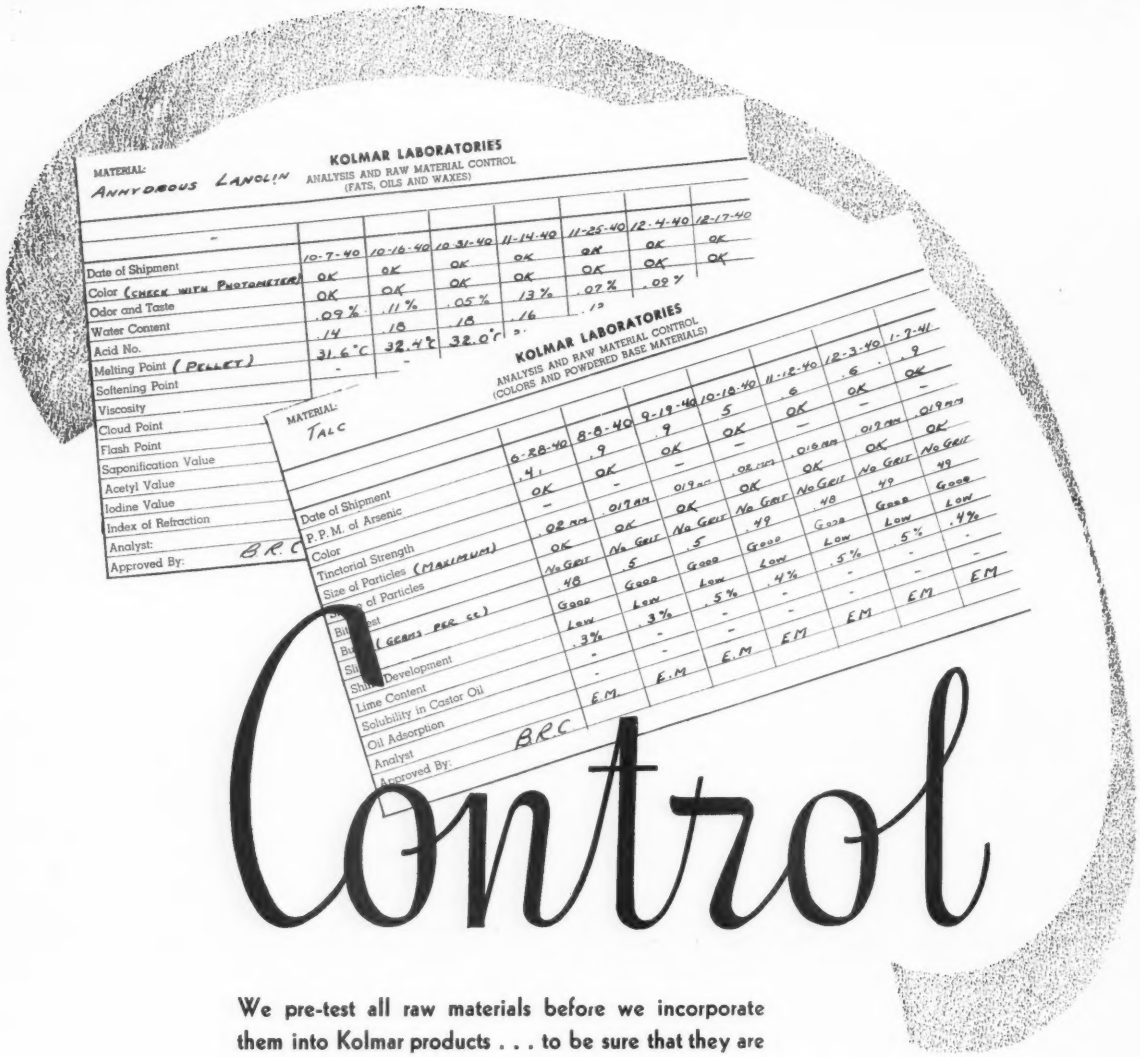
Mr. Bertoli began his business career with Fuller-Morrison & Co., Chicago, at the turn of the century and remained with them as sales manager until he joined McKesson & Robbins soon after its organization in 1928. He was next employed in the Viscoloid division of the duPont Co. in New York and then joined the Nyal Co., division of Frederick Stearns & Co., Detroit, as sales manager, later becoming general manager, a position which he held for five years. In 1938 he became sales manager of A.D.S.

Dr. Schoeffel Joins Merck

Dr. Eugene W. Schoeffel, associated for the past year with John Wyeth & Bro., Inc., Philadelphia, has joined the Merck Institute of Medical Research, Rahway, N. J., to do research work on pharmaceutical products. Before joining Wyeth Dr. Schoeffel was chemist in charge of the microchemical division of the chemical laboratory of the American Medical Association.

Dr. Schoeffel, who obtained his Ph.D. at the University of Wisconsin, has specialized for many years in the application of microchemical methods to plant chemistry, analysis of drug products, enzymes, fats, carbohydrates and alkaloids.

NEW MERCK LABORATORY


KOLMAR LABORATORIES
ANALYSIS AND RAW MATERIAL CONTROL
(FATS, OILS AND WAXES)
MATERIAL: ANHYDROUS LANOLIN
Date of Shipment
Color (CHECK WITH PHOTOMETER)
Odor and Taste
Water Content
Acid No.
Melting Point (PELLET)
Softening Point
Viscosity
Cloud Point
Flash Point
Saponification Value
Acetyl Value
Iodine Value
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Analyst:
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KOLMAR LABORATORIES
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(COLORS AND POWDERED BASE MATERIALS)
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Date of Shipment
P.P.M. of Arsenic
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Lime Content
Solubility in Castor Oil
Oil Adsorption
Analyst
Approved By: B.R.C
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Control

We pre-test all raw materials before we incorporate them into Kolmar products . . . to be sure that they are up to our inflexibly high standards. And, because of this testing . . . YOU can rely on Kolmar uniformity

KOLMAR LABORATORIES

MILWAUKEE • NEWARK

Manufacturers of private label brands, only.

Representatives

Mr. M. C. Boyd, Quinby Building, Newark, N. J.
Mr. Douglas Haggerty, 122 E. 42nd St., New York City
Mr. Warren Curry, 3950 Club Drive, Atlanta, Ga.
Mr. Norman Kole, 980 Merchandise Mart, Chicago, Ill.
Mr. R. F. G. Byington, 1260 N. Western Ave., Los Angeles, Cal.

Ungerer & Co. to Move

Frederick H. Ungerer, president of Ungerer & Co., New York, who has completely recovered from his recent illness and is now spending full time at his office, announces that Ungerer & Co.

FREDERICK H. UNGERER

will move the latter part of December. The Company has taken the fourth floor in the Butterick building located at 161 Sixth Ave. This one floor will give Ungerer somewhat more space than they

BUTTERICK BUILDING

now occupy on the three floors of their present location at 15 West 20 St., and will result in increased efficiency.

In addition to the offices of the Company, the perfume compound and control laboratories will be moved to the new location and certain stocks of bulk materials will be carried there. Main stocks of bulk materials will continue to be carried in the five-story warehouse owned by Ungerer and located at 226-228 West 20th St.

Merck Wins Ad Award

For the fourth successive year Merck & Co., Rahway, N. J., has been selected as one of the Fifty Direct Mail Leaders of the United States and Canada by the board of judges of the Direct Mail Advertising Association. This year the company also won the President's Cup for "the most outstanding industrial direct mail campaign." Douglas Wakefield Coutlee, director of advertising for the company, received the two awards at the association's annual convention banquet held at the Mount Royal Hotel, Montreal, October 9.

The awards were made on the basis of outstanding direct mail literature employed in the professional promotion of several Merck medical products. The Merck Report, a magazine for physicians and pharmacists which Mr. Coutlee edits, was also included in the winning presentation.

McKesson Fellowship

McKesson & Robbins, Inc. has established a graduate fellowship in marketing research at the College of Commerce, Ohio State University, Columbus, Ohio, for the scientific study of distribution problems in the drug industry.

The first project will comprise a study of "Sales Trends of Drug Products" and will be undertaken by James H. Davis, Ohio State graduate student, to whom the fellowship has been awarded. The McKesson fellowship provides $2,100 plus expenses of carrying out the project. It is the first of its kind to be offered by the drug trade to a college of commerce, according to Dr. Herman C. Nolan, associate professor of marketing, who will supervise the research project.

Mr. Davis, the recipient of the fellowship, is a native of Seattle where he was born in 1914. He was graduated from the University of Missouri with a degree of B. S. in Business Administration and is now working toward a master's degree in financial administration, marketing and economics.

American Home Buys Miller

Directors of the Miller Wholesale Drug Co., Cleveland, have approved plans by the American Home Products Co., Jersey City, N. J., to purchase the Miller assets and business as soon as a proxy statement is approved by the S.E.C. The proposal was submitted to stockholders for approval November 12.

Burgund Advanced by Carr-Lowrey

A. C. Burgund, manager of the New York office of Carr-Lowrey Glass Co., has been made a vice-president of the company. Mr. Burgund, who has been associated with the company for twenty-nine years, has been attached to the New York office since 1927 and has been manager of the office since 1937.

At the same time C. E. Hilgenberg was made assistant manager of the New York office. Mr. Hilgenberg has been a member of the New York staff for about eight years.

Anchor Advances Crawford

W. V. Fisher, vice-president and general manager of the Anchor Hocking Glass Corp., Lancaster, Ohio, has announced the promotion of Hugh Crawford from manager of the company's Pacific Coast closure division to manager of the entire closure division.

Mr. Crawford who has been associated with the organization on the west coast for over eighteen years in a sales and managerial capacity, will now make his headquarters at Lancaster.

Glyco Cosmetic Manual

"Glyco Cosmetic Manual" a twenty-four page booklet has been published by Glyco Products Co., Inc., Brooklyn, N. Y. It contains formulae for creams, lotions, hair preparations, lipsticks, mascaras, shaving preparations together with a list of cosmetic bases manufactured by Glyco, a list of suppliers of raw materials, a bibliography and list of Glyco representatives. Copies of the manual are available upon request.

Garfienkel Chemical Expands

Owing to increased business, Garfienkel Chemical Co., New York, has increased the size of its offices at 1775 Broadway, that city, the same building in which it has been located. During the past two years the export market of the company has been greatly increased so that it now comprises all Central and South American countries as well as Great Britain and her colonies.

The technical department, under the personal supervision of L. Garfienkel, president of the company, has made a special study of the revalorization of by-products resulting from the treatment, the fractioning, and distillation of essential oils and aromatic products as well as heavy chemicals.

Anchor Advances Dilworth

John R. Dilworth has been advanced to Assistant General Sales Manager of the Anchor-Hocking Glass Corporation effective November 1, and will make his headquarters at the main office of the company in Lancaster, O. Mr. Dilworth, who was formerly Eastern Sales Manager of the company, has spent his entire business career in the glass bottle business, starting with the Salem Glass Company when he left college, and continuing when this company was bought by the Anchor Metal Cap Co., which company later merged with the Hocking Glass Company to form Anchor-Hocking Glass Corporation.

John K. Colgate Named Director

E. H. Little, president of Colgate-Palmolive-Peet Co., Jersey City, N. J., has announced that John K. Colgate has been elected a director of the company. Mr. Colgate is the son of Russell Colgate, who, until his death on July 31 of this year, was a member of the board of directors. He is a great grandson of William Colgate, founder of Colgate & Co. in 1806, the oldest of the three companies which, through mergers in 1927 and 1928, became the Colgate-Palmolive-Peet Co.

John K. Colgate is secretary, treasurer and a director of Van Strum & Towne, Inc., investment counsel, New York. He has been associated with Van Strum & Towne since 1938 and prior to that time had been with Parrish & Co., Spencer Trask & Co., DuBosque, George & Co., and the purchasing department of Colgate-Palmolive-Peet, his first job after leaving Yale University.

"Zinc in Defense" Folder

A four-page folder, "Zinc in Defense" has been issued by New Jersey Zinc Co., New York, to explain to its customers the myriad uses for zinc in the Defense Program which have limited the supply of zinc products for non-defense consumption. Many of the uses for zinc are quite unusual and not widely known and the pamphlet shows the versatility of zinc in times of peace as well as war. Copies are available upon request.

Wallace Labs. to New Brunswick

Wallace Laboratories has announced that its Trenton and Jersey City plants and offices were moved October 1 to New Brunswick, N. J.

Andre Firmenich Visits Here

Andre Firmenich, of the firm of Chuit Naef & Cie., Geneva, Switzerland, and president of Firmenich & Co., Inc., New York, arrived in this country by clipper October 13 on his first visit in three years. Mr. Firmenich, who served a year in the Swiss Army during the mobilization which followed the declaration of the present war, is believed to be the first representative of a Continental European perfume specialty and aromatic house to arrive here since the present war started.

ANDRE FIRMENICH

Mr. Firmenich states that his house has been able to keep shipments coming to this country in sufficient quantities to supply American customers. During his stay here he has received further notice of shipments that have left Switzerland. As a further indication of the extent to which goods have been coming through, he states that there has been relatively little difficulty in taking care of the greatly increased demands of American customers during the current business boom. Mr. Firmenich considers his house singularly fortunate in that it has been able to continue shipments to this country.

The usual difficulties are being experienced in Switzerland in obtaining raw materials for the manufacture of the finished aromatics and perfume compounds since practically all of these raw materials are imported. The details concerning the securing of these raw materials are quite similar to the details necessary in this country. They include the location of new sources of raw materials, the securing of shipping space, the transfer of funds, and many other difficult operations known to importers here.

Mr. Firmenich is now on a trip to Chicago and some other western cities with Rupert C. Watson, manager of Firmenich & Co., Inc. He plans to return to Switzerland the first part of December.

Armand Co. Changes

Carl Weeks, president and chairman of the board of the Armand Co., Des Moines, has announced the following new appointments. E. D. Weeks is general manager and treasurer; O. H. Ellis, chief chemist and plant manager and I. E. Carlin, secretary. During the coming year the company plans to extend its ethical advertising theme to consumer publications and to introduce a new line of make-up, which is said to be radically different and to have proved successful in tests made this year.

New I. V. C. Company

Alvin G. Brush, chairman of the board, American Home Products Corp., has announced that the acquisition of International Vitamin Corp. by American Home Products Corp. has resulted in the formation of a new company, the International Vitamin Sales Corp.

Simon Lubarsky, former president of International Vitamin Corp., has been made president of the new company and all other officers have been retained. The manufacturing and sales personnel remains unchanged.

Lewistown Corp. Labs. Formed

A new company, Lewistown Corp. Laboratories, to specialize in the manufacture of pharmaceutical products, such as nicotinamide, nicotinic acid diethylamide, salophene, and digitalin, from the French process has been formed. The company's experimental laboratories and executive offices are at 221 West 57 St., New York, and the manufacturing plant occupies the tenth floor of the building at 39-43 West 60 St., that city.

The new Lewistown equipment was installed under the personal supervision of Dr. Stephan Klinghoffer of Buenos Aires who came to New York for the purpose.

Dr. De Falco Joins Sharp & Dohme

Ralph J. De Falco, Ph.D., has become a member of Sharp & Dohme's constantly-expanding medical-research division. He is a graduate of the College of William and Mary and studied for three years at Yale Medical School, receiving his Ph.D. degree from Rutgers University in 1940.

For the past three years, Dr. De Falco has been instructor of zoology at Rutgers, and at the same time he was assistant in serology and devoted his research to this field.

In the Sharp & Dohme laboratories he will work in the department of immunochemistry.

The name **Baker** *is known wherever Fine Chemicals are used*

A partial list of Tonnage Fine Chemicals held under rigid control, at no price premium.

- Alkali Bromides
- Potassium Iodide
- Magnesium Oxide
- Magnesium Carbonate
- Cream of Tartar
- Bismuth Subcarbonate—Subnitrate and other Salts
- Caustic Potash and Soda Sticks and Pellets
- Rochelle Salt
- Lead Acetate
- Salicylates

DEEP-ROOTED QUALITY

Like the sturdy roots of a giant oak, Baker Quality goes deep.

The Baker Chemical Co. was founded — and achieved its first success — on *quality.* That was 36 years ago when Baker pioneered Analyzed C. P. Chemicals—boldly printing on the label the actual analysis (purity analyzed to the decimal). Baker was the first company and still is the *only* company in this country to take this quality step.

Baker's achievement of quality in Fine Chemicals, *purity by the ton,* has been equally interesting. Because of their unusually high standards of purity, their uniform quality, Baker's Fine Chemicals are *sought* by hundreds of pharmaceutical manufacturers.

You, too, may have a manufacturing problem where a quality Fine Chemical can enable you to offer more selling advantages. It may be a refinement of a U. S. P. Chemical. It may be a special chemical made especially for you to rigid specifications. Whatever it is — let Baker discuss your problem with you. Baker has had the privilege of helping many pharmaceutical manufacturers achieve their goal.

Look at the list of tonnage Fine Chemicals on this page. These are only a few of the many Baker Fine Chemicals that have won us a host of friends from large pharmaceutical and drug houses.

Wherever Fine Chemicals are used, the name, Baker, is known. So be sure to get samples of Baker's, and compare. It is on this basis alone that we ask you for your business. Your inquiries and interest are invited.

Baker's

J. T. BAKER CHEMICAL CO., Phillipsburg, New Jersey

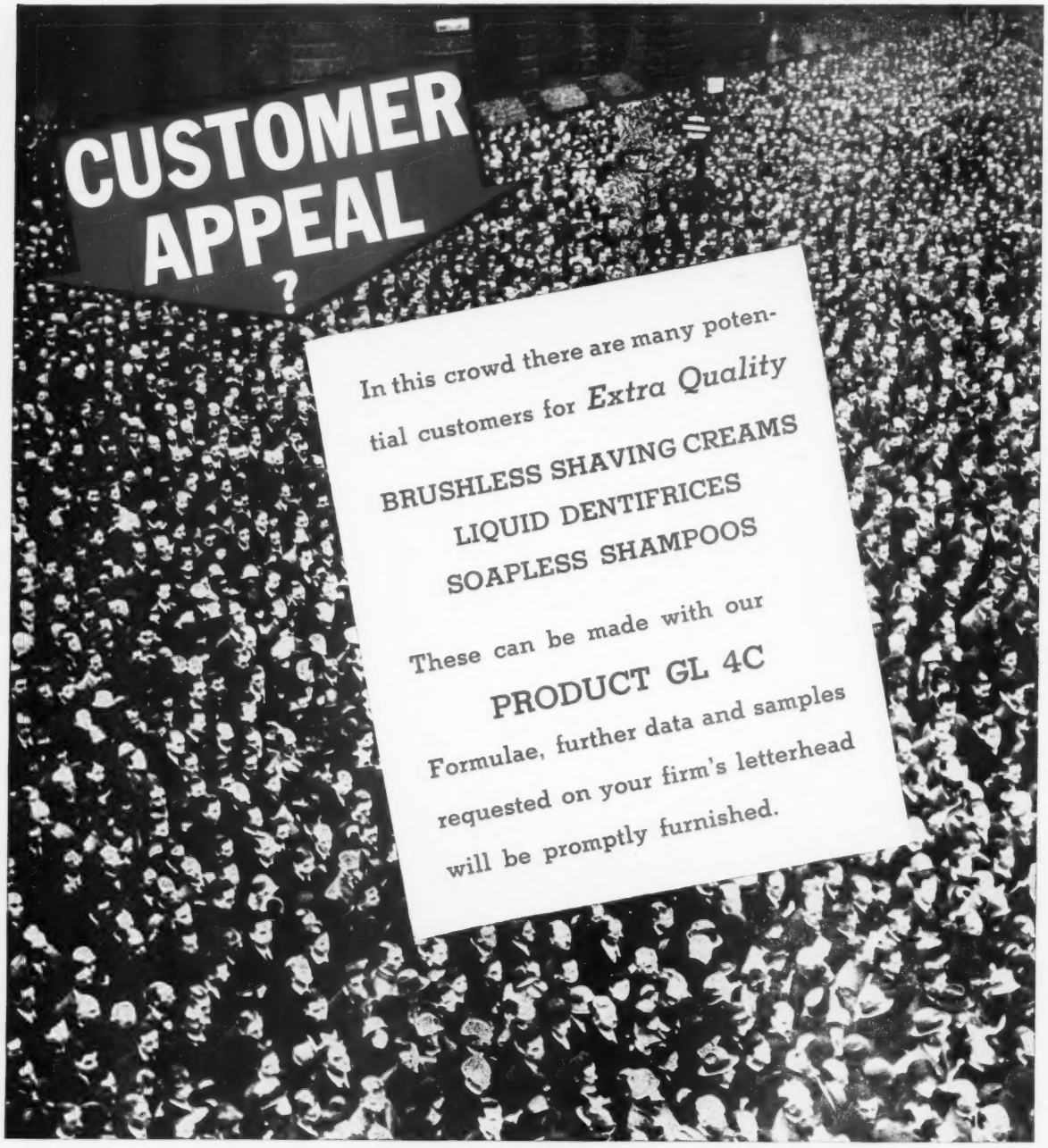
NEW YORK
420 Lexington Avenue

PHILADELPHIA
220 South 16th Street

CHICAGO
435 North Michigan Avenue

Baker's fine chemicals

Has Your Product


CUSTOMER APPEAL ?
In this crowd there are many potential customers for Extra Quality
BRUSHLESS SHAVING CREAMS
LIQUID DENTIFRICES
SOAPLESS SHAMPOOS
These can be made with our
PRODUCT GL 4C
Formulae, further data and samples requested on your firm's letterhead will be promptly furnished.

Aromatics Division

GENERAL DRUG COMPANY

644 Pacific St., Brooklyn, N. Y.

9 S. CLINTON STREET, CHICAGO TRANSPORTATION BLDG., LOS ANGELES
1019 ELLIOTT ST., W., WINDSOR, ONT.

The true quality of our lipstick, rouge and other private label cosmetics is measured in terms of a double standard:– the protection afforded your [illegible] name and the assurance (through past performance) of repeat sales. Ask to see samples of our compelling new fashion shades . . . they're packed with persuasion and stimulating sales appeal.

PRIVATE LABEL COSMETICS:

LIPSTICK . . . ROUGE . . . FACE POWDER
EYE SHADOW . . . MASCARA . . . BEAUTY AIDS

Products Liability Insurance Carried

PARIS COSMETICS, INC.

116 WEST 14TH STREET, NEW YORK, N. Y.
CABLE: PARISTIC NEW YORK

Sturge Standard

PRECIPITATED *Chalk*

Specific grades to meet your requirements for

DENTIFRICES
FACE POWDER
ROUGE
TABLETS

For over fifty years American chemists and drug and cosmetic manufacturers have learned by experience that they can depend on STURGE STANDARD PRECIPITATED CHALK for *Unfailing Uniformity, Unfailing Quality and Unfailing Deliveries.*

JOHN & E. STURGE
Limited

Distributors:
H. J. BAKER & BRO.
271 Madison Ave. • New York, N. Y.

Waterbury Paper Box Anniversary

The officers and directors of the Waterbury Paper Box Co. gave a dinner at the Hotel Elton, Waterbury, Conn., November 3. The dinner, which was followed by entertainment and dancing, was in celebration of the company's fortieth anniversary.

Long of Schieffelin Retires

William E. Long, wholesale manager of Schieffelin & Co., New York, has *retired after fifty-five years of consecutive* service with the company. H. S. Livingston, first vice-president of Schieffelin & Co. gave a farewell dinner for Mr. Long at Billy Rose's Diamond Horseshoe.

American Can Changes

American Can Co. has announced that hereafter the administration of both packers can and general line sales, in all districts east of the Rocky Mountains, will be through two new sales division offices—the Atlantic Division at 230 Park Ave., New York, and the Central Division at 104 S. Michigan Ave., Chicago.

Several changes in personnel have been made in the Atlantic division. R. M. Roberts, formerly assistant general manager of sales, packers can, has been made manager of sales, and H. H. Howry, formerly district sales manager, Atlantic district, packers can, has been appointed assistant manager of sales. F. G. Jewett, formerly assistant to district sales manager, Atlantic district, general line, has been appointed assistant manager of sales and T. E. Alwyn, formerly sales division manager, Atlantic district, general line, has been appointed assistant manager of sales.

In the Central division, J. J. Lynch, formerly district sales manager, central district, packers can, has been appointed assistant to the vice-president. H. A. Pinney, formerly district sales manager, central district, general line, has been made manager of sales and L. W. Grasskamp, formerly assistant district sales manager, central district, packers can, has been made assistant manager of sales. M. J. Eberhart, formerly assistant district sales manager, central district, general line, becomes assistant manager of sales.

Associations

Missouri Golf Tournament

The golf section of the Associated Drug and Chemical Industries of Missouri, Inc., held its final meeting of the season at Bellerive Country Club, October 14. Eighteen holes were played in the rain and prizes were awarded.

Executives and Representatives of Bristol-Myers Company held their annual four-day sales convention at the Biltmore Hotel, New York, the week of October 6th. Left to right, in the second row, seated, Earl Wells, Cincinnati representative; A. R. Jones, Philadelphia representative; Robert B. Brown, advertising manager; R. J. Ingram, assistant sales manager; J. M. Allen, advertising manager; J. W. Brooks, assistant sales manager; Lee H. Bristol, vice-president in charge of advertising and public relations; Henry P. Bristol, president and chairman of the board; Justin Haynes, director of Bristol-Myers Company; Earl A. Means, vice-president in charge of sales; Dr. Robert Spline, director of professional department; Walter Bomer, vice-president in charge of export; and Claude M. Crawford, manager of southwestern branch.

Lind to Head Salesmen

John A. Chew, chairman of the nominating committee of the Salesmen's Association of the American Chemical Industry has announced the selection of Carl O. Lind, Dow Chemical Co., for president next year. Other officers on the slate drawn up by the committee are: vice-president, G. S. Furman, Merck & Co.; treasurer, John J. Butler, Jr., Industrial Chemical Sales Division, West Virginia Pulp & Paper Co.; secretary, Phil J. LoBue, Michigan Chemical Co.; executive committee, J. P. Remensnyder, Heyden Chemical Corp. and Frank A. Fanning, N. I. Malmstrom & Co.

Packaging Institute Meets

At the annual meeting of the Packaging Institute held at the Westchester Country Club, Rye, N. Y., October 16-17, George R. Webber, manager, package development bureau, Standard Brands, Hoboken, N. J., was elected president and A. Vernon Shannon, sales manager, Westfield River Paper Co., Russell, Mass., and Wallace D. Kimball, 1st vice-president, Standard-Knapp Corp., Portland, Conn., were elected vice-presidents.

Directors elected were: Production division, William M. Bristol, Jr., Bristol-Myers Co., Joel Y. Lund, Lambert Pharmacal Co.; Machinery division, Wallace D. Kimball, Standard-Knapp Corp., Kendall D. Doble, Pneumatic Scale Corp., Ltd.; Supplies division, H. A. Barnby, Owens-Illinois Glass Co., Hal W. Johnston, Stecher-Traung Lithograph Corp.

Howard A. Sumner, Norwich Pharmacal Co., was re-elected chairman of the Production division and Stanley L. King, Monsanto Chemical Co., was elected chairman of the Supplies division.

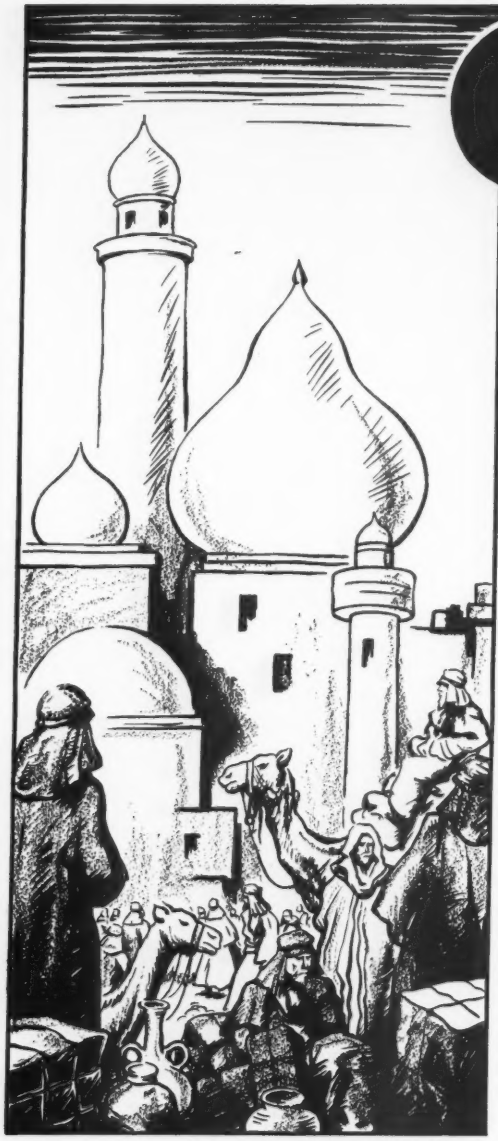
The Packaging Machinery Manufacturers Institute, which operates as the Machinery division of the Institute, elected as president Charles L. Barr, vice-president, F. B. Redington Co., Chicago, and as vice-presidents Wallace D. Kimball, Standard-Knapp Corp., and George A. Mohlman, Package Machinery Co. Roy E. Johnson, Arenco Machine Co., New York, was elected to the directorate of the Machinery group.

"Packaging Priorities" was the topic of the two-day meeting which included a talk on paper conservation by Roy W. Peet, Colgate-Palmolive-Peet Co., chairman of the OPM committee; a discussion on collapsible tubes and work of the Technical Committee of the Institute; "Substitute Packaging Materials" by Charles A. Breskin; and "Metal Shortages and Machinery" by H. H. Leonard, Consolidated Packaging Machinery Corp. and Wallace D. Kimball.

People

Luis De Hoyos Returns

Luis De Hoyos, president of Synfleur Scientific Laboratories, and mayor of Monticello, N. Y., where his business is located, recently returned from his trip as a delegate to the Inter-American Congress of Municipalities held at Santiago, Chile. Upon his arrival at Pennsyl-



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KARAYA
TRAGACANTH
ARABIC
LOCUST

ORBIS GUMS, whole or powdered, are the products of expert experience of forty-two years standing in the selection of fine raw materials and in milling to guarantee complete satisfaction for your most exacting technical requirements.

ORBIS GUMS can be obtained in any mesh from the finest powder to the various granular forms used to a great extent in the drug field—ground in our modern mill at Newark, New Jersey.

ORBIS KARAYA GUM in fine powdered form is specially adaptable for "Wave Sets."

Please let us know your requirements. Working samples upon request.

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831 N. Wabash Ave.

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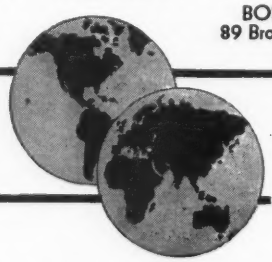
610 Brown Bldg.

BOSTON
89 Broad Street

MEMPHIS, TENN.
1620 Carr Ave.

Water Soluble Gums	Waxes	Cosmetic Raw Material	Fruit Flavors
Filter Paper	Stearic Acid	Oleo Resins	Food Colors
Aromatics	Essential Oils	Perfume Bases	Quince Seed
Rice Starch	Zinc Oxide French	Olive Oil	Irish Moss



vania Station, New York, Mayor De Hoyos was the subject of an enthusiastic reception.

Mayor De Hoyos said that besides President Roosevelt and Sumner Welles, Mayor LaGuardia is the next popular man in South America. Mr. De Hoyos said that he was mistaken for Mayor LaGuardia in Peru and Chile. He was paraded for half an hour before he could explain that he was not Mayor LaGuardia.

Black—Amer. Can Director

At a meeting of the board of directors of American Can Co., October 29, C. H. Black, vice-president in charge of sales, was elected a director. Mr. Black has been a member of the American Can sales organization since 1908.

Dart Resigns from Walgreen

Justin W. Dart, general manager of the Walgreen Co. since 1939, has resigned. Mr. Dart joined Walgreen as a clerk after his graduation from Northwestern University. He became general manager when the late Charles Walgreen became chairman of the board and his son, Charles, Jr., became president.

Bolton Awarded Medal

Elmer K. Bolton, chemical director of E. I. duPont de Nemours & Co., was given the chemical industry medal of the Society of Chemical Industry, at a joint meeting of the Society of Chemical Industry, the New York Section of the American Chemical Society and the New York Section of the American Institute of Chemical Engineers on November 7

Dr. C. M. A. Stine, vice-president of du Pont spoke on the personal side of Dr. Bolton's life and Prof. Rogers Adams of the University of Illinois discussed his technical achievements. Dr. Wallace P. Cohoe, former chairman of the American Section, presented the medal to Dr. Bolton who gave an address on "The Development of Nylon."

Huisking-Rebak

Mr. & Mrs. Joseph A. Huisking, Woodhaven, Queens, N. Y., have announced the engagement of their daughter, Dorothy, to Vincent L. Rebak, son of Mrs. George Kelly, Forest Hills, Queens. Miss Huisking's father, Joseph A. Huisking, is a vice-president of Fritzsche Brothers, Inc. Mr. Rebak was graduated from St. John's University and is now completing his officers training course in the Army Air Corps at Lowry Field, Denver.

John Paulding Marries

John Paulding, of the model soda department of Solvay Sales Co., New York, was married to Mary Williamson, of Chicago, October 4 at Westfield, N. J.

Correction of Name

Dr. B. A. Bourne, Chief of Agricultural Research, United States Sugar Corp., Clewiston, Fla., was the author of the article, "The Creation of a New Essential Oil Industry in America," which appeared in the September, 1941, issue of THE DRUG AND COSMETIC INDUSTRY. In the byline on the article Dr. Bourne's initials were given incorrectly.

Financial

Squibb Net Steady

E. R. Squibb & Sons and domestic and Canadian subsidiaries report for the year ended June 30, a net profit of $2,200,788, equal to $4.05 each on 472,682 shares of no-par common stock, against $2,175,907, or $3.92 a common share in the year ended June 30, 1940.

McKesson Settlement

Federal Judge Alfred C. Coxe has signed an order approving settlement of claims against McKesson & Robbins, Inc., by McKesson & Robbins, Ltd. of Canada. These claims were based on agreements entered into in 1927 by the two companies.

The proposal approved contemplates the payment by McKesson & Robbins, Inc. of $95 per share to the holders of the 10,000 shares of the preference stock of the limited company, and the purchase at $2 per share of approximately 10,000 shares of its common stock now held by the public.

The settlement also provides that the remaining assets of the Canadian company, after payment of creditors, are to be turned over to McKesson & Robbins, Inc., and the former company is then to be dissolved.

Anchor-Hocking Net Steady

Anchor Hocking Glass Corp. and subsidiaries report for the twelve months to September 30 a net profit of $1,169,134 after $1,205,666 provision for income and excess profits taxes and non-recurring loss of $465,102 on the sale of the Long Island City plant. This is equal to $1.39 a share on the common stock and compared with a net of $1,298,737, or $1.50 a common share, for the twelve months to September 30, 1940, after $401,053 provision for income taxes.

Bristol-Myers Earns More

Bristol-Myers Co. reports for the three months ended September 30 estimated earnings of $879,507, or $1.32 each on 667,251 common shares. These earnings are after $1,085,420 provision for income taxes at existing rates, of which $200,000 was charged from reserve set up in second quarter of this year. For the September quarter last year the net income was $831,296.

For the nine months to September 1941 the consolidated earnings were $2,184,965, or $3.27 a share, against $1,974,137, or $2.89 last year.

Commercial Solvents Net Steady

Commercial Solvents Corp. reports for the nine months to September a consolidated net profit of $1,637,486, equal to 62 cents a share on 2,636,878 shares after provision for Federal normal income and excess profits taxes, against $1,608,988 or 61 cents a share after providing for Federal normal income tax last year.

For the September quarter the net income was $732,504, or 28 cents a share, against $562,437, or 21 cents a share, in the September quarter last year.

Continental Can Net Off

Continental Can Co., Inc. reports net earnings of $7,381,502 for the twelve months ended September 30. This is equivalent to $2.51 each on 2,853,971 shares of common stock. For the twelve months ended September 1940 the earnings amounted to $8,944,485, equal to $2.82 a share on the common stock.

Deductions this year for depreciation, depletion and estimated income and excess profits taxes amounted to $9,482,191 whereas for the year ended September 1940 they amounted to $8,944,485.

Gallaher Drug Net Up

Gallaher Drug Co. reports for the year to June 30 a net income of $171,164, against $141,735 in the previous year. The sales were $5,098,844, compared with $4,477,602.

Lambert Profits Up

The Lambert Co. reports for the nine months to September 30 a net profit, before Federal normal tax and surtax, of

Exchange BRAND

Citric Acid

U·S·P·

CRYSTALS • GRANULAR • POWDERED

MADE IN WORLD'S LARGEST LEMON PRODUCTS PLANT
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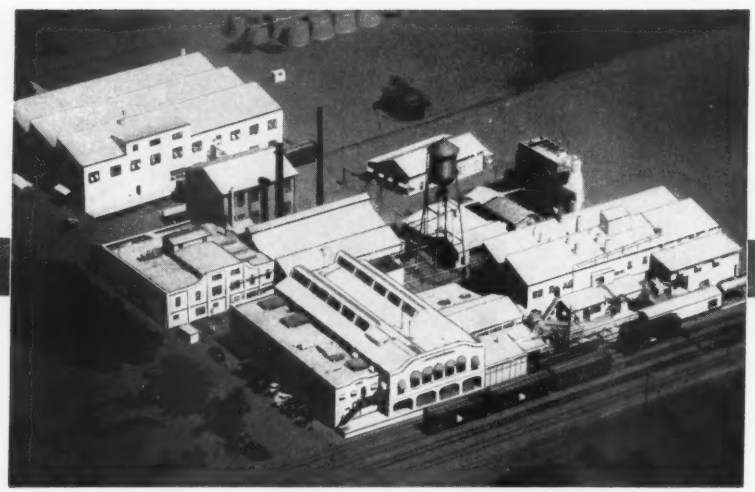

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CALIFORNIA FRUIT GROWERS EXCHANGE, PRODUCTS DEPARTMENT

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$1,707,035, against $1,202,175 in the same period last year. After providing for Federal normal tax and surtax, estimated net profit for 1941 period is $1,178,164, equal to $1.58 each on 746,371 shares and comparing with $881,778, or $1.18 a share in the previous year.

For the September quarter the estimated consolidated net profit after Federal normal tax and surtax is $523,613, or 70 cents a share, against $367,477, or 49 cents a share for the September quarter of 1940.

McKesson Earns More

McKesson & Robbins, Inc. reports earnings of $1,352,825 for the three months ended September 30, 1941, after provision for debenture interest of $119,875 and Federal taxes of $992,000 after giving effect to certain non-recurring tax savings arising from the company's recent reorganization. The figures which are unaudited and subject to year-end adjustments, covered the first three months since the company was returned to private management July 1.

W. J. Murray, Jr., president, pointed out that reserves have been created to cover the claims arising out of a predecessor company's guarantee of profits of McKesson & Robbins, Ltd. If the claims are settled this year there will be an additional substantial saving in taxes in 1941.

Assuming that the company's present capitalization had been in effect in both years, and without giving effect to the non-recurring tax savings arising from reorganization, pro-forma figures show that the company would have earned $830,714 for the three months ended September 30, 1941, after interest of $119,875 and taxes of approximately $1,500,000, as compared with $641,044 for the same period last year, after interest of $119,875 and taxes of $203,000. This would have been equivalent to 45 cents per share of common stock, as compared with 34 cents per share last year, after deducting preferred stock dividend requirements of $73,500 for each period.

Net sales for the three months to September 30 were $50,213,046, bringing the total for the first nine months of the calendar year to $134,744,381. This compares with sales of $110,768,462 in the first nine months of 1940. While the three months sales of $50,213,046 represent an all-time high, it was pointed out that $15,348,658 represented liquor sales, a large part of which occurred in September in anticipation of excise taxes which became effective October 1.

Monsanto Earnings

Monsanto Chemical Co. reports for the third quarter of 1941 a net income of $1,673,291, equivalent to $1.19 a share. After adjustment for taxes assessed by the Second Revenue Act of 1940, earnings for the third quarter of 1940 were equal to 81 cents a common share.

For the first nine months of 1931, the company's income, inclusive of a dividend of $281,400 from Monsanto's British subsidiary and after provision for increased income taxes imposed by the Revenue Act of 1941 was equivalent to $3.57 a share against $2.51 earned in the first nine months of 1940.

Sales of the American companies for the third quarter rose 43 per cent. above the comparable quarter in 1940, to $16,214,755.

The statement of consolidated income for the nine months shows that the company has set aside for estimated normal income taxes $2,347,722, and for estimated excess profits taxes $5,032,000, totaling $7,379,722 and leaving a net income before minority interest of $4,974,189.

Norwich Earnings Up

Norwich Pharmacal Co. and subsidiary report for the third quarter of 1941 an increase in earnings before taxes of $192,075, or 67 per cent., and after Federal taxes, in accordance with the 1941 Revenue Act, of $275,134, an increase of $58,321, or 27 per cent. This is equal to $.345 per share for the third quarter of 1941 as compared with $.272 for the third quarter of 1940.

Profits for the nine months ended September 30 before taxes were $1,023,605, an increase of 36 per cent. Federal taxes, however, amount to $433,229 as compared with $181,158, leaving a net profit after taxes of $590,376, or $.742 per share as compared with $575,054, or $.721 per share for the first nine months of 1940.

Sales for the nine months period increased over 1940 by $995,589, or 28.6 per cent.

Owens Sales Up Sharply

Owens-Illinois Glass Co. and subsidiaries report for the year ended September 30 a net income of $8,672,797, compared with $8,048,406 for the preceding twelve months. The earnings were equal to $3.26 a share against $3.02 for the preceding twelve months. Sales rose to $114,051,689 from $87,485,585.

Provision for Federal normal income tax, Federal excess profits tax and State and foreign income taxes amounted to $7,853,270 this year while the total for the year ended September 30, 1940, was $2,014,319.

Obituaries

James T. Brady

James T. Brady, eastern representative of Wilson Laboratories, Inc., died at his home near Somerville, N. J., October 8. He was fifty-four years old.

Mr. Brady was born in Ithaca, N. Y., and was a graduate in veterinary medicine from Cornell University. His association with Wilson Laboratories extended over a period of about twenty-five years. After representing the company in the midwest he was transferred to the eastern office about twenty years ago.

John M. Considine

John M. Considine, general sales manager of United Drug Co., Boston, died suddenly of a heart attack in a St. Louis hotel, October 4, while on a business trip. He was fifty years old.

Dr. Louis Klein

Dr. Louis Klein, director of clinical research at Hoffmann-LaRoche, Inc., Nutley, N. J., died at his home in Upper Montclair, N. J., October 24. He was fifty-six years old.

Dr. Klein was born in Brooklyn and was graduated from the Medical College of Long Island University. He practiced medicine in Brooklyn for three years and in 1917 became associated with Parke-Davis & Co. After fifteen years with Parke Davis in New York and Detroit, Dr. Klein went to Hoffmann-LaRoche where, in addition to being director of clinical research, he was editor of "The Roche Review."

Mrs. B. L. Maltbie

Mrs. B. L. Maltbie died in Buffalo October 24. She was the wife of B. L. Maltbie, formerly of the Maltbie Co.

John A. Seitz

John A. Seitz of Eimer & Amend died in New York October 21 of a heart attack.. He was sixty-four years old and had been a chemist for Eimer & Amend for the past forty years.

NON-CONFORMISTS, KEEP OUT!

THERE'S one requirement you *must* have in every shipment of pharmaceuticals that enters your receiving room—*uniformity!*

And here's one excellent way to make *sure* you get that requirement in every shipment—look to Monsanto as your source of supply for pharmaceuticals!

Every batch of *every* Monsanto pharmaceutical is carefully checked against Monsanto's high standards at *every* important step in its manufacture.

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MONSANTO CHEMICALS

SERVING INDUSTRY...WHICH SERVES MANKIND

F.T.C. ACTIVITIES

Complaints

Mar-Gol Health Products

Mar-Gol Health Products Corp., Oak Park, Ill., selling "Roberta Blueberry Juice," is charged with misrepresentation.

The complaint charges that the respondent has represented that the product:

"* * * contains essential organic mineral elements.

* * * iron, potassium, phosphorus, magnesium, sodium, silicon, sulphur and calcium."

"Promotes cell building, blood fluidity, makes body fluid alkaline, acts on glands" and,

"Stimulates the liver, promotes bile flow and beautifies the complexion."

The complaint alleges that the product is not a body builder and that its use will not have a beneficial effect upon the many ailments for which it is recommended; and that it does not contain in significant amounts the essential organic minerals enumerated in the complaint. The complaint alleges further that use of the product will not stimulate the liver, promote bile flow or beautify the complexion, nor is it a red blood builder or cleanser.

Pile Remedy

Merritt Freeman Butler, trading as Freeman's Products, Grand Rapids, Mich., selling "Freeman's Pyletts," advertised as a treatment for piles, is charged with misrepresentation and false advertising.

The complaint charges that the respondent has represented that his preparation is an effective treatment and cure for all forms of piles and hemorrhoids, and that its use promotes general good health.

The complaint alleges that the preparation is of no substantial therapeutic value in the treatment of these ailments, nor is it of any value in excess of its laxative properties. The complaint further alleges that the preparation contains phosphorus, which is a potentially dangerous drug, and that the repeated or continued use of the preparation may result in phosphorus poisoning and deterioration of the bones of the body According to the complaint, the respondent's advertisements constitute false advertisements because of their failure to reveal the consequences which may result from use of the preparation under customary conditions or conditions prescribed in the advertisements.

Sterling Capsules

Nature's Herb Co., San Francisco, selling "Sterling Capsules," is charged with misrepresentation and false advertising.

The complaint alleges that the respondent has represented that "Sterling Capsules" are "A highly effective combination of medicines for the relief of Pains, Aches, Stiffness or Soreness due to rheumatism, arthritis, sciatica, lumbago, neuralgia or neuritis. Contains no narcotics—no dope of any kind."

The complaint alleges that the preparation is not a competent, effective or remarkable cure for arthritis and the ailments enumerated and has no substantial therapeutic value in the treatment of such ailments. In fact, the complaint continues, the preparation is dangerous to health in that its cumulative effect in the system may result in chronic local irritation of the alimentary tract, gastro-intestinal disturbances, collapse, or other physical impairment. According to the complaint, the danger of such injury may be avoided only by limitation of dosage to a period of not more than two or three days.

Magnesia S. Pellegrino

Codrin Corporation, New York, selling "Magnesia S. Pellegrino," is charged with misrepresentation and false advertising.

"* * a sovereign remedy against constipation and stomach acidity. * * * a teaspoonful, every morning and every evening, in half a tumblerful of water or milk, will rid you forever of constipation and stomach acidity."

Through this and other representations, the complaint alleges, the respondent has represented that the preparation acts as a disinfectant, will normalize the digestive system, regulate the intestines and will not irritate the intestinal walls.

In truth, the complaint charges, the preparation is a laxative or cathartic, depending upon the dose, and is potentially dangerous when taken by one suffering from abdominal pains, stomachache, cramps, cholera, nausea, vomiting, or other symptoms of appendicitis, and the respondent's advertisements fail to reveal the consequences that may result from its use under conditions prescribed in the advertisements or under such conditions as are customary or usual.

Stipulations

Dobbs Truss Claims

The Dobbs Truss Company, Inc., Birmingham, Ala., has agreed, in connection with selling "The Dobbs Truss," that it will discontinue representing that the device is the first major advancement in truss designing or is wholly different from any truss; that it will hold any rupture; that it is a natural healer and will aid nature in curing a rupture; or that "The Dobbs Truss" will bring muscles together in a manner that will cause or enable them to adhere.

Mantho-Kreoamo

In a supplemental stipulation, Mantho-Kreoamo, Inc., Clinton, Ill., agrees to discontinue representing that "M-K-Manto-Kreoame" will combat symptoms of cold infection, protect against or prevent colds or soothe inflamed bronchial membranes or allay fever, or will furnish relief in cases of flue or bad colds in excess of such relief as may be afforded by its expectorant properties.

The respondent also agrees to discontinue representing that the doctor from whose prescription the formula originated or was developed was a noted Illinois doctor or had national fame.

Bragg's Grass Tablets

Paul C. Bragg, trading as Live Food Products Co., Burbank, Calif., selling "Bragg's Grass Tablets," has agreed to discontinue representing that the preparation will prevent sickness, promote health, stimulate activity, or that it is rich in Vitamin A. The respondent also agrees to cease representing that the preparation has any dietary value other than as a supplemental source of Vitamin A to the extent of the number of International Units that it contains.

EXCLUSIVE WITH HOPKINS

HOPKINS' FACTOLAC

For permanent emulsions of both fixed and volatile oils. Insures complete, homogeneous mixture without trituration or special apparatus. An ideal, trouble-saving, money-saving emulsifier.

HOPKINS' PINEALCO

To make a dependable Syrup of White Pine Compound, N. F., standardize on Hopkins' Pinealco. Therapeutically reliable, uniform in color, odor and flavor. So highly concentrated, a single pound of Pinealco will yield about 20 pints of Syrup.

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FOR TOILETRIES • COSMETICS • PROPRIETARIES

HOPKINS' NEUTRAL POWDERED WHITE SOAP

Assures snow-whiteness, neutral taste, absence of free alkali, low moisture content and very low residue of alcohol, water and sodium carbonate. Completely dependable uniformity and performance.

HOPKINS' EGYPTIAN HENNA

Consists solely of choice Egyptian Henna leaves. Laboratory tested. A 100% vegetable product. Milled on slow stone grinders assuring maximum coloring content. For repackaging or sale in bulk, this is the Henna that will build a profitable, repeat, quality business.

"Quality is remembered long after price is forgotten"

FREE UPON REQUEST

Samples and quotations for any of these Hopkins' Specialties, upon request. We invite correspondence on any problems to which our technical staff can bring its expert cooperation.

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VANITY CASES • ROUGE CASES • PASTE ROUGE

CONTAINERS • LIPSTICK HOLDERS (ALL TYPES)

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BOTTLE CAPS • JAR CAPS • METAL NOVELTIES TO ORDER

THE BRIDGEPORT METAL GOODS MFG. CO.

Established 1909

BRIDGEPORT CONNECTICUT

Humm Hair Dyes

Humm Laboratories, Inc., Oakland, Calif., Duart Manufacturing Co., Inc., Ltd., San Francisco, Humbert Miragia and William H. H. Davis, agree to cease advertising that the use of hair dye preparations designated "Humm" will restore or reproduce the true or natural color of the user's hair in 45 minutes or any other period of time; that use of the preparations once makes the user an expert, unless this representation is limited to qualified beauticians or hairdressers; that their use will make all hair soft and silky; that Humm is an amazing new product and, unqualifiedly, that the preparations will not deteriorate.

Beauty-Glo to Stop

Beauty-Glo, Inc., Joseph Adelman, William Cotton and Samuel Scheff, New York, agree to cease representing that any of their products, when applied externally to the face or skin, will revitalize or give new life to the skin or help to eliminate freckles or have any effect on blemishes, pimples, coarse pores or blotches, or will penetrate deeply into the pores, remove wrinkles, waken or reawaken near-dead tissues, or prevent the hair from falling out.

Battle Creek Food Co.

The Battle Creek Food Co., Battle Creek, Mich., agrees to cease advertising that "LD-Lax" relaxes or rests the colon or intestines, combats or allays infection in the colon, is a remedy or cure for constipation and is of value as a treatment for stomach distress or stomach disorders. The respondent also agrees to cease representing that "Lacto-Dextrin" restores health to the digestive system, restores the intestinal system to a healthy balance, and causes headaches, nervousness, exhaustion, morning fatigue, gastric acidity and other ailments to disappear.

Sterile Tooth Brushes

I. Sekine Co., Inc., New York, manufacturer of toothbrushes, agrees that, when advertising toothbrushes not so packaged and sterilized as to be rendered sterile, it will cease use of the word "Sterilized."

Animal Remedy

Harold Hilty, trading as Marvelous Vegetable Yeast Co., Milwaukee, Wisc., has stipulated to discontinue representing that "Marvelous Vegetable Yeast" constitutes a remedy or effective treatment for diseases of poultry or animals generally or is efficacious in correcting or preventing worms and coccidiosis in chickens, pigeons or other poultry and worms in dogs, cats, foxes, minks or other animals.

Natural Health Products

Morris Botwen, trading as Natural Health Products Co., New York, has stipulated that he will cease representing that "Vitameal" is a vitalized or a life food, that it will improve or fortify health or give one youthful beauty, that it normalizes overweight, is loaded with minerals and contains all the minerals or vitamins essential to health, or that it is recommended by food scientists or health doctors, and that other cereals are sickness-producing or will cause colds, tonsil trouble, catarrh, and similar ailments; that "Instant Manam" is a cure or remedy or is of value in the treatment of intestinal ulcers and other diseases and ailments, is a stomach or intestinal cleanser, or that it is of value in the treatment of toxicity, indigestion or gastritis; that "Vita-Ferro" is rich in iron, phosphorus or other organic materials, or that it is a soy bean milk drink, that it is of value for underweight persons or especially beneficial for growing children; that "Co-Veg" does not contain a stimulating drug or coffee or caffein, or that it is rich in any vitamin or mineral, or that it antidotes coffee effects or is an alkaline or a coffee substitute.

The respondent also stipulates to discontinue representing that "I-O-Sol" affords protection to the throat, will cause one to have firm or healthy gums or contains an antiseptic that clears up germ breeding spaces or destroys bacteria, or that it will prevent pyorrhea or other mouth diseases; that "Sea Tabs" is a gland tonic, will increase energy or manliness or cause one to have alluring curves, ruby lips, glowing cheeks, high spirits, vivacity or beauty; that "Natural Herb Tea" is a cure or remedy or of value in the treatment of skin eruptions, fatigue, listlessness and other ailments or that it will increase energy; that "Vegeton Soap" will free one from enlarged pores, prevent athlete's foot or skin infections; that "Vegeton Hair Preparation" is a cure or remedy or of value in the treatment of dandruff, brittle or falling hair, or itching scalp; that "Vegeton Skin Cream" is antiseptic or will keep the skin soft, smooth or youthful; that "Tupelo Honey" is a cure or remedy or of value in the treatment of asthma, or that it may be safely used by diabetics without further disclosing that it should not be used by diabetics except under competent medical direction and advice; that "Garlic and Parsley Pellets" is a cure or remedy or of value in the treatment of high blood pressure; or that "Natural Herb Tea," "Euca Pine Oil" or "Vegeton Body Soap," when used alone or in combination, are of value in relieving or in the treatment of rheumatism, arthritis, or neuritis.

The respondent further agrees to cease and desist from using the term "Vita" as a part of the brand name for the products "Vitameal" and "Vita-Ferro," or from otherwise representing or implying that they contain vitamins in significant amounts; and to desist from using the term "Ferro" as a part of the brand name for the product "Vita-Ferro," or from otherwise representing that it contains iron in significant amounts. The respondent also agrees to discontinue use of the word "Instant" as a part of the brand name for the product "Instant Manam," or otherwise representing or implying that it has an instant action, and from use of the term "Veg" as a part of the brand name of the product "Co-Veg," or from representing or implying that it is composed wholly of vegetable ingredients.

National Laboratories

Henry Spangler, trading as National Laboratories and as National Laboratories, Inc., Benjamin Franklin Station, Washington, D. C., seller of an alleged remedy for sinusitis, agrees to cease representing that his "Bullock's System" or "Bullock's Antiseptic Healing and Cleansing Tonic," "Bullock's Nasal Salve," "Bullock's Antiseptic Emollient" and "Bullock's Clear Head Tablets," constitute an effective treatment or competent remedy for sinusitis, infectious catarrh or any pathological process of the nose, mouth, throat or sinus. The respondent further agrees to cease any advertisement which fails to reveal that frequent or continued use of "Bullock's Clear Head Tablets," may be dangerous, causing collapse or dependence on the drug; provided, however, that such advertisement need contain only the statement: "Caution, use only as directed on the label," provided such label contains a warning to the effect that the frequent or continued use thereof may be dangerous, causing collapse or dependence on the drug.

You will save valuable time and gain helpful knowledge.

THIS YEAR is putting technical management to the test. The Chemical Industries—all industries depending on applications of chemistry—more than ever before, need quick, efficient and intensely practical pooling of brains. Every authoritative means of interchanging knowledge has become of momentous importance, making this year's Exposition of Chemical Industries not only timely, but literally essential to National Defense.

THIS EXPOSITION, by bringing together leading manufacturers and thousands of those whom they can serve, will help to solve problems, relieve bottlenecks and speed production. Visit this year's Chemical Industries Exposition, see and learn about newest developments, discuss your problems with experts. Nowhere else can you find so much helpful information as readily, as promptly and as profitably as at this Exposition.

NEVER BEFORE has the Chemical Exposition been of greater importance. Not in years have so many manufacturers serving the chemical industries arranged to be on hand to help answer the production and procurement worries faced by industry everywhere. Here, in one week or less, you can witness scores of demonstrations; consult specialists present at exhibits solely to help visitors; see with your own eyes what is available in new materials, equipment, appliances, instruments and supplies; examine, compare, and find what you need.

It is long since exhibitors, themselves as busy and as eager to serve as you are, have made as great effort to contribute to Industry's needs. By the very fact that these manufacturers are taking time out to exhibit in this busy era, they set themselves apart as a group particularly worth meeting. Isn't that the kind of manufacturer with whom you'd like to do business? See what these exhibitors offer.

This year, attendance is a "must". Don't miss it. Be sure to come—bring your associates.

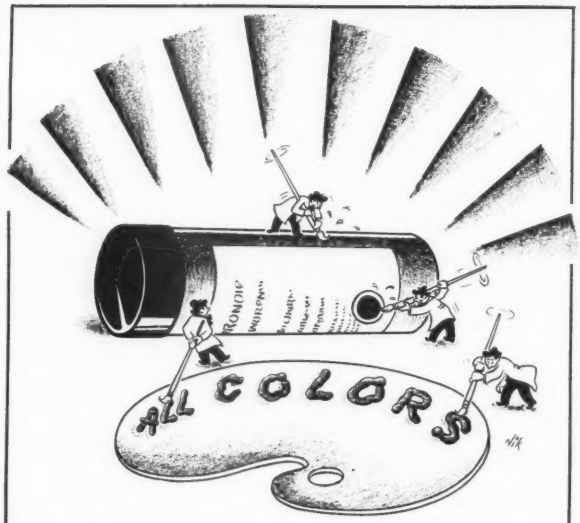
18th EXPOSITION OF CHEMICAL INDUSTRIES

GRAND CENTRAL PALACE, NEW YORK, DEC. 1-6, 1941

Managed by International Exposition Co.

DEDICATED TO SPEEDING UP AMERICA'S INDUSTRY FOR THE DEFENSE PROGRAM

568



Color is only PART of the Packaging Picture!

Colorful containers appeal to the eye; make your package easier to identify. There are other important factors, too! Factors that mean safety and economy. That's why so many modern, *profitable* items are packaged in

CELLUPLASTIC CONTAINERS

They stand up better in contrast to brittle containers, because they are shatter-proof; cost less to ship because they are 80% lighter than glass. Process-labeled surfaces assure lasting messages even during re-use periods.

SEAMLESS • SHATTERPROOF • FEATHERLITE

COLORFUL • PROCESS-LABELED in manufacture

Shatterproof, CELLUPLASTIC containers need no coddling wraps or cartons. They travel *safely*, without EXTRA, costly protection. That's important in these days of mounting costs and scarcity of raw materials. Test them yourself, see how they stand up and attract the eye.

FIRST IN CELLUPLASTICS

HYCOLOID--CLEARSITE

Write Today for Full Details

CELLUPLASTIC CORPORATION

50 AVENUE L NEWARK, N. J.

New York Display Offices — 626 Fifth Avenue

"Dark Eyes"

Hec Barth, trading as "Dark Eyes," Chicago, selling a dye for eyelashes and eyebrows, called "Dark Eyes," agrees to cease any advertisement which fails conspicuously to include therein a statement to the following effect:

"CAUTION: Prolonged or frequent use of this preparation may result in permanent discoloration of the skin and mucous membranes."

PROVIDED, however, that such advertisement need contain only the statement:

"CAUTION: Use only as directed on the label."

if and when the label bears the first described caution conspicuously displayed thereon and the accompanying labeling bears adequate directions for its use.

Dr. Tracy Co. to Stop

H. W. Johnson, trading as Dr. D. W. Tracy Co., New Haven, Conn., has stipulated to discontinue representing that his treatment is a modern or scientific treatment or a three-way treatment for skin blemishes, disorders or conditions; that "Calsul Pills" is a blood purifier or helps eliminate effete or waste matter from the blood; that "Laxamin Tablets" promotes or helps to promote elimination of waste poisons from the bowels, helps to keep the bowels in a normal condition, or that it has any therapeutic value in excess of a mild laxative; that "Acnol Ointment" will remove blackheads or skin blemishes or rehabilitate the skin, or that his treatment, or the use of any or all of his three preparations, is a reliable or effective treatment for the cure, correction or prevention of skin blemishes, disorders or conditions such as pimples, acne, eczema, blackheads or similar skin disorders, or that it will erase, kill or remove surface germs, blotches, scars or other disfigurements, or restore or enable one to regain a clean, smooth skin; or that the treatment has any therapeutic value in the treatment of skin blemishes, disorders or conditions in excess of an antiseptic, astringent emollient for external use.

Drug Section at Skytop

At the Sixth Annual Fall Meeting and Golf Tournament of the Drug, Chemical and Allied Trades Section of the New York Board of Trade at Skytop, Pa., the business session on Friday, October 24, included informative addresses by John T. Fishburn, Chief, Commodities and Natural Resources Section, Office of Coordinator for Inter-American Affairs, and William S. Shipley, Chairman of Board, York Ice Machinery Corp., and Chairman of the York Defense Committee. John J. Toohy, Chairman of the Section, presided at the meeting.

Mr. Fishburn, speaking on the subject of "The American Business man in South America," outlined the progressive work of Coordinator Rockefeller's office emphasizing the improvement in industrial relations between the North and South American businessmen. He stressed the increased opportunities for trade and the large potential markets being developed.

Mr. Shipley, a founder and leading exponent of The York Plan of Industrial Cooperation, pointed out the need for mutual cooperation in all American communities to insure complete success of the National Defense program.

Dayton Crowell, of Collier's Magazine, discussed the present World War from the viewpoint of the press. Two documentary films with dialogue by Quentin Reynolds were shown under the direction of Mr. Crowell.

A capacity attendance of more than 175 business executives with their wives were present at the Section's meeting, which extended from Thursday evening, October 23, to Sunday, October 26. A varied entertainment program under the direction of R. F. Berls, Vice-Chairman of the Section, was presented.

Mr. Shipley said that the objectives of the York plan were:—

1. To use our present facilities as far as we could in regards to machine tools.
2. To get idle tools working.
3. To make a survey of tools outside the metal trades group.
4. To study the kind of work we could best do.
5. Building "national spirit" in the community.
6. Educational work, in the sense that the schools would turn out men who can operate machine tools.
7. Housing problem.
8. Community health.
9. Analyzing cost to prime contractors, in that it was apparent to the committee that it would be impossible for the sub-contractor to expect his regular amount of profit, nor could he expect to charge all his overhead on work that was sublet to him. It was suggested, therefore, that no charge be made for engineering or selling expense, nor anything else that didn't go directly into the cost of the job in question.
10. Delivery. It is also understood that the subcontractor should familiarize himself with the delivery requirements and endeavor to live up to them.
11. Accuracy. The committee felt that the subcontractor should also acquaint himself with the degree of accuracy that was required on the work that was placed in his shop in order that the prime contractor would be sure that parts manufactured by the subcontractor would be acceptable to the government inspector.
12. Supplying labor. The committee decided that it was essential to study the labor requirements, if and when all our manufacturing plants are operating three shifts daily.
13. Labor potential. We are now studying the labor potential in our area.
14. Supplying additional labor. We have contacted all the non-metal shops, from which sources we obtained names of 204 who could operate machine tools.
15. To enter all activities that deal directly or indirectly with the defense program. This includes Red Cross, Bundles for Britain, nurses and doctors.

Winners in the golf tournament were: Low Net—Chas. M. Macauley, Prophy-lac-tic Brush Co.; Low Gross—Arthur Mayer, National Starch Products Co.; 1st Flight-Low Net—Russell Boland, Drug Trade News.; 2nd Flight-Low Net—James J. Clark, Liggett Drug Co.; 3rd Flight-Low Net—Harold M. Altshul, Ketchum & Co.; 4th Flight-Low Net—A. E. Wiseman, Eli Lilly & Co.; 1st Flight Low Gross—A. P. Connor, A. P. Connor & Co.; 2nd Flight Low Gross—T. F. Cosgrove, Platt-Forbes; 3rd Flight Low Gross—Joseph F. Kelly, Hagerty Bros. & Co.; 4th Flight Low Gross—Mrs. R. J. Quinn (Mathieson Alkali Works); 1st Flight 2nd Low Net—C. E. Jamieson, C. E. Jamieson & Co.; 2nd Flight 2nd Low Net—James McInnes, Commercial Solvents Corp.; 3rd Flight 2nd Low Net—W. J. Kramer, Philipp Brothers; 4th Flight 2nd Low Net—F. J. McDonough, N. Y. Quinine & Chemical Works; Longest Drive—Jos. A. Huisking, Fritzsche Brothers; Nearest Pin—Wm. F. George, Chemical Industries; Kickers handicap—Harold C. Green, L. Sonneborn Sons; H. A. Brown, Eli Lilly & Co.; Robert L. Hutchins, Commercial Solvents Corp.; Chas. W. Frost, Prior Chemical Co.; Maxson A. Eddy, Kimble Glass Co.; Ladies' Kickers—Mrs. Lloyd I. Volckening (Ivers-Lee Company).

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INDUSTRY'S BOOKS

We Need Vitamins, by Walter H. Eddy, Ph.D., and Gessner G. Hawley, 102 pp., Reinhold Publishing Corp., New York, Cloth, $1.50.

This book is in reality a Primer of the nature and functions of all the known vitamins. It contains authentic, simply stated information designed primarily for the general reader. The latest values of the vitamin content of foodstuffs are given in handy tabular form. The general reader will find this a highly useful summary of the fascinating vitamin story. Contents: What Are Vitamins?; Vitamin A; The B Complex. Vitamin B_1; The B Complex; Vitamin C. The Antiscurvy Vitamin; Vitamin D. The Antirickets Vitamin; Vitamin E. The Fertility Vitamin; Vitamin K. The Coagulation Vitamin; Vitamin P (Citrin). Appendix. Table of Vitamin Content of Foodstuffs.

High Polymeric Reactions, Their Theory and Practice, by H. Mark and R. Raff, Translated from the Manuscript by Luise Harris Weissberger and I. P. Irany, Illus., 476 pp., Interscience Publishers, Inc., New York, Cloth, $6.50.

This volume attempts to describe the present state of our knowledge concerning the mechanism of chemical processes during which highpolymers are formed. Ever since organic chemists first succeeded in synthesizing macromolecules, they have been developing ideas and speculations as to how these large particles are gradually built up from the monomeric starting materials. As the experimental data increased and a deeper understanding of these processes began to emerge, it became necessary to pass on to a more quantitative treatment of the problem. A number of eminent chemists devoted their efforts to the development of quantitative methods of following polymerization processes under various experimental conditions and of identifying the chemical composition of the products as rigorously as possible. The results of these researches showed the need of working out a general kinetic schedule for polyreactions, of dividing them into their constants and of discovering how those steps gradually lead from the starting material to the final polymer. Such a kinetic treatment of polyreactions does not comprise the ultimate information one would like to obtain, but it is a necessary approach to it. The desirable final information is a clear idea about the elementary molecular processes involved in such steps as activation, propagation, chain-branching, termination, ring-closure, etc. It is the belief of the authors that no successful formulation of these fundamental processes will be possible until a series of quantitative values are available concerning orders of reaction, activation energies and steric factors of the different steps of a polyreaction. The last ten years have brought considerable progress in just this direction and it is the first aim of the present volume to collect and present the most significant and recent information to the reader who is interested in this subject.

Diseases of The Nails, by V. Pardo-Castello, M.D., 193 pp., Illus., Second, Ed., 193 pp., Charles C. Thomas, Springfield, Ill., Cloth, $3.50.

This practical, concise book covers one of the most difficult therapeutic problems. The available knowledge of the clinical and scientific aspects of diseases of the nails is presented in a clear and adequate manner. Diagnosis and treatment (including roentgen-ray treatment) are emphasized. Contents: Anatomy and Histology of the Nails; Pathology of the Nails; Affections Peculiar to the Nails; Onychodystrophies; Ungueal Manifestations of Dermatoses and of Systemic Diseases; Congenital Affections of the Nails; The Roentgen Ray Treatment of Diseases of the Nails. Addendum: Occupations in which Diseases of the Nails are Common. Ungueal Symptoms Due to Poisons. References. Index.

Pharmaceutical Dispensing, by William J. Husa, Ph.G., Second Ed., Illus., 794 pp., Husa Brothers, Iowa City, Cloth, $4.

In preparing this edition, every chapter has been thoroughly revised so as to include all important new developments in the theory and practice of compounding and dispensing. New prescriptions and new illustrations from all sections of the United States have been added. Particular attention has been given to improving and enlarging the chapters on incompatibilities. The scientific classification of incompatibilities, which was introduced for the first time in the previous edition of this work, has been broadened in scope. A special effort has been made to include as much information as possible on the incompatibilities of proprietary specialties, which play so important a part in modern prescription practice. Chapters dealing with the various phases of professional pharmacy have been thoroughly revised so as to incorporate the latest practice. A chapter on pharmaceutical service for the podiatrist has been added.

Organic Syntheses, Vol. 18, 103 pp., John Wiley & Sons, Inc., New York, Cloth, $1.75.

This is an annual publication of satisfactory methods for the preparation of organic chemicals. In this edition the following twenty-nine new synthesis are given: 2-Acetothienone; Acetylenedicarboxylic Acid; Allylamine; Barbituric Acid; Betaine Hydrazide Hydrochloride; b-Bromoethylamine Hydrobromide; a-Chloroanthraquinone; a, b-Dibromosuccinic Acid; 4, 4'-Difluorobiphenyl; 3, 4-Dihydro-1, 2-Naphthalic Anhydride; Diphenyl Selenide; Diphenylselenium Dichloride and Triphenylselenonium Chloride; Ethyl Benzoylacetate; Ethyl a-Phenylacetoacetate; N-Ethyl-m-Toluidine; l-Histidine Monohydrochloride; a-Hydrindone; Malonic Acid; Methyl Benzyl Ketone; Methyliminodiacetic Acid; 1, 2-Naphthalic Anhydride; p-

Nitrobenzaldehyde; Phenoxthin; a-Phenylacetoacetonitrile; 2-Phenylphyridine; Potassium Anthraquinone-a-Sulfonate; Protocatechualdehyde; Taurine; p-Tolylcarbinol. Volumes 19, 20, and 21 of "Organic Syntheses" have been released since the publication of Volume 18.

Qualitative Analysis, by H. V. Anderson, B.Ch.E., M.S., and T. H. Hazlehurst, A.B., Ph.D., Third Revised Ed., 266 pp., Prentice-Hall, Inc., New York, Cloth, $3.70.

The justification for publishing a third revised edition of this text is found in the experience gained in the use of the previous editions. Certain changes in the presentation of the principles of the science of chemistry have seemed advisable. Among these are a more thorough treatment of acid-base reactions, including acidity in sulfide systems and acidity in melts in the same chapter, and also a more detailed discussion of oxidation-reduction reactions and their analogy to acid-base reactions. Several new exercises have been included as additional illustrations of various principles. Ionic equations have been used regularly throughout the text. The various tables in the appendices have been brought up to date. The electromotive Series has been considerably extended to include almost all the oxidation-reduction reactions used in the various procedures. The table of Solubility Product Constants has been revised in accordance with the data presented in Latimer's Oxidation Potentials. A table of Ionic Radii and Ionic Potentials has been added.

Drug Store Management, by Herman C. Nolen, A.B., M.S., Ph.D., and Harold H. Maynard, A.B., A.M.Ph.D., First Ed., 570 pp., Illus., McGraw-Hill Book Co., New York, Cloth, $4.

In this important new book the authors describe and analyze methods, policies, and practices of merchandising which have proved successful in drug stores throughout the United States. The approach is practical and specific rather than general or theoretical, since the purpose is to meet the needs of practicing pharmacists as well as those of students in schools of pharmacy. The material in the book has been prepared in close cooperation with a number of leading specialists in the field of drug store management, and the authors have incorporated the ideas, suggestions, and experiences of successful pharmacists and outstanding manufacturers. Contents: Pharmacy as a Career; Getting Started in the Drug Business; Selecting the Form of Business Organization; Acquiring and Financing the Store; The Store Building and Its Construction Features; Drug Store Planning and Layout; Buying Goods That Will Sell; Buying the Right Quantity; Pricing to Yield a Profit; Sales Promotion: Advertising and Store Promotion; Sales Promotion: Window and Interior Display; Effective Drug Store Salesmanship; Merchandising Proprietary Medicines, Hospital Supplies, and Baby Goods; Developing Professional Business; Merchandising Cosmetics and Toiletries; Merchandising Photographic Supplies and Equipment; Merchandising Candy, Tobacco, and Sundries; Making the Soda Fountain Profitable; Selecting, Training, and Supervising Employees; Paying Employees; Evaluating the Work of Employees; Drug Store Routine and Housekeeping; Store Policies That Produce Profits; Accounting Records in the Drug Store; Using Outside Helps to Guide the Business; Legal Principles for the Pharmacist; Specific Laws Affecting Drug Stores; What kind of Insurance Should a Pharmacy Carry?; Meeting Competition effectively.

The Glass Electrode, by Malcolm Dole, 332 pp., John Wiley & Sons, Inc., New York, cloth, $4.50.

This book covers all known facts concerning the glass electrode except industrial pH meters containing glass electrodes, of which there are now thousands in use. It offers much material submitted by contributors which has never before been published and contains many practical, helpful facts that can be found in no other reference. All pertinent material concerning pH as measured with the glass electrode, such as types of glass, electrodes and cells, special applications, difficulties and techniques, methods of calculating or avoiding errors, as well as related discussions on the significance of pH measurement with a list of the advantages and disadvantages of these methods is also given, so that the position which the glass electrode occupies in the pH realm can be correctly understood. Thermionic amplifiers which today have practically displaced electrostatic electrometers in the laboratories of physicists and chemists, thanks to the development of new types of vacuum tubes, are described in considerable detail in Chapter 3. Directions for building accurate and serviceable electrometers of this type should prove to be of value to physical scientists who are interested in the measurement of the e.m.f. of any system having a high resistance as well as that of glass electrode cells.

Temperature, Its Measurement and Control in Science and Industry, 1362 pp., Reinhold Publishing Corp., New York, Cloth, $11.

This book is the record of a "Symposium on Temperature—Its Measurement and Control in Science and Industry," held in New York, November 2, 3, and 4, 1939, under the auspices of the American Institute of Physics. The Institute planned the Symposium with the following purposes in view: (1) coordination of the treatment of the subject of temperature in the several branches of science and engineering, (2) review of fundamental principles and a recapitulation of recent progress, (3) accumulation of contributions for a comprehensive text to be published after the Symposium, (4) emphasis on the importance of temperature as a branch of physics, (5) improvement of technical curricula through making the latest information available. In accordance with previous plans the Symposium papers, with the discussions, have been rearranged for publication in thirteen chapters, together with twenty-five tables of generally useful data, a Glossary of technical terms, and complete indexes. The arrangement has been designed to make the book most convenient for both reference and study. Chapters 1—Temperature and Temperature Scales; 2—Precision Thermometry; 3—Education; 4—Natural Sciences; 5—Temperature in Biology; 6—Temperature and Its Regulation in Man; 7—Automatic Temperature Regulation and Recording; 8—Special Applications and Methods; 9—General Engineering; 10—Metals and Ceramic Industries; 11—Oil Industries; 12—Optical and Radiation Pyrometry; 13—Thermometric Metals and Alloys.

Modern Cosmetology, by Reuben Rockwood and Irene Ruddock, 405 pp., Prentice-Hall, Inc., New York, Cloth, $3.00.

The purpose of this book is to present a balanced text that will cover the subject of cosmetology, its related sciences, and its manipulative practices, for both teachers and students, and at the same time fulfil the requirements of courses in vocational education and enable the student to answer State Board questions. The book is divided into the following twenty-three chapters: Shop Deportment; Selling Beauty Culture Services and Shop Merchandise; Cells and Tissues; The Skeletal System; The Muscu-

lar System; The Nervous System; The Circulatory System; The Skin; The Hair and The Nails; Diseases and Abnormal Conditions of the Skin, Hair and Nails; Sterilization and Sanitation; Chemistry in Cosmetology; Electricity in Cosmetology; Haircutting; Shampooing and Rinsing; Hairdressing; Permanent Waving; Scalp Massave; Bleaching and Coloring; Manicuring; Facials and Make-Up; Removing Superfluous Hair; Body Contouring. As a book of reference, this work should be invaluable to both the recent graduate and to the operator long out of beauty school who wish to meet completely the modern demands of their vocation.

The Chemical Formulary, Vol. V. H. Bennett, 676 pp., Chemical Publishing Co., Inc., Bklyn., N. Y., Cloth, $6.

This is a collection of practical commercial formulae and recipes for making thousands of products in many fields of industry. Sufficient new formulae have been gathered to compile a fifth volume —an addition which will broaden and bring up-to-date the contents of the previous four volumes. The list of subjects covered are too numerous to mention here. The following will prove especially interesting to this industry: Rubber & Latex; Drugs; Insecticides; Pharmaceuticals; Oils & Fats; Bleaches; Deodorants; Disinfectants; Dental Products; Flavors; Cosmetics; Soaps and Waxes. An enlarged directory of sources of chemicals and supplies has been added. This should prove useful in locating new as well as old materials and products.

Modern Physics of Roentgenology, by H. M. Muncheryan, M.Sc., Second Ed., 392 pp., illus., Wetzel Publishing Co., Inc., Los Angeles, Cloth, $6.

Modern Physics of Roentgenology presents a complete curriculum on the subject of X-ray technology. The subject matter is essentially devoted to the treatment of the physical and electrical engineering aspects of roentgenology, and consists of an introduction to atomic theories supplemented by electrical phenomena and basic principles of light production in relation to X-rays and electromagnetic waves in general. A thorough presentation of the subject of electricity (D.C. and A.C.); all types of related electrical measurements; thermionic emissions and rectifiers of various types; and photo-emission treated in converse relation to X-ray emissions. X-ray radiations, their nature, generation, and applications in medicine and industry as well; measurement of X-ray wave-lengths, intensity, and absorption; and, X-ray tubes of all types, their design, manufacture, and characteristics thoroughly treated from a technical standpoint. A comprehensive treatise is presented of the construction and operation of the X-ray apparatus together with rectification circuits of all types including those of high-tension generators producing potentials in excess of a million volts as applied in therapy and special research work. An extended consideration of the physical aspects of radiographic effects covering the usual field, radiological procedures, physical phases of roentgen therapy, and positioning technics (abridged form), is presented from a practical viewpoint.

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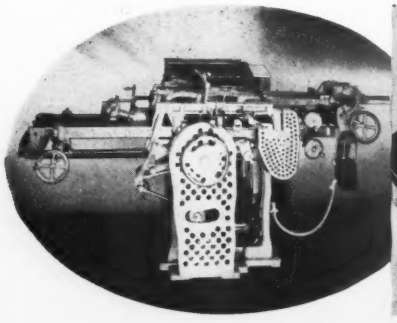

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PRODUCTION FORUM

By FRANCIS CHILSON
Production Engineer

PRODUCTION MEN EMERGE

At last the lowly production man is coming into his own. For many years in the trade production was regarded as a necessary evil involving a lot of complexities too abstruse to disturb the sleep of managements everywhere. Salesmen and sales managers everywhere were ascendent and received the lion's share of the payroll. It is significant that throughout the drug and cosmetic industry the higher executive positions almost invariably were filled by men who had come up through the sales department. These men as a rule knew little about production. The same condition obtained to a lesser extent in other industries.

Now that we as a nation are in a mess, people have begun to realize that production men really do amount to something after all. "Production" is the slogan of the day. Sales and salesmen have been pushed into the background and even the big shots condescend to listen with anxious interest to what the production man has to say about getting out the goods. Not much is expected of the average production man really. It is up to him somehow to get the raw materials, the machinery, and the men, and to produce twice as much as he ever did before, even though everything is short and rapidly becoming impossible to get.

It is significant that the Government set up an Office of Production Management. It wasn't called Sales Management or Financial Management or any other kind of management. It is interesting to observe that this office is an integral part of the Government and it is very likely that after the defense program is over it will continue to function as a government bureau.

This, at any rate, is the thesis of a book which you all should read, "The Managerial Revolution." This book advances the thesis which was first enunciated in "Fortune Magazine" some time ago that we are steadily coming into a planned economy in which production managers will not only run industry but the Government as well. The book cites facts to show that capitalism has already lost the major part of its power in industry, that the Government is steadily taking over great business enterprises and that the operation of these enterprises will require trained production men. The book, moreover, contends that, if this trend continues, labor as with capital will recede farther and farther into the background, in spite of the fact that at the moment labor seems to be in the saddle. The book is very interesting and in a sense flattering to production men, since it is evidence that at long last, even among the highbrows, our efforts are beginning to be appreciated and our value correctly appraised.

JOB RATING

A good deal of discussion is going on through the trade on rating people and rating jobs. In some publications articles have been written on the subject but nothing concrete may be obtained from them. It is easier to rate a new employee by setting up some sort of arbitrary values for physical condition, experience, mechanical aptitude, personality, etc. Thus it is possible to tell very quickly whether a new employee is physically fit, has a nice personality, is relatively intelligent, and has an adequate background of education and experience. But when you attempt to rate a job objectively so as to establish a rate of pay for it which will be fair in respect to the job itself and in relation to all other jobs of dissimilar nature throughout the plant, you come smack up against some intangibles that are difficult to surmount. It is one thing to get statistics from the Department of Labor and through the trade associations from other competing firms and

Conserving the nation's health, as well as that of the fighting forces, is vital to our defense program . . . and increased production facilities must be provided to fulfill the requirements of this program. While it is a fact that most of our plant capacity is now engaged in direct defense work for government purchasing agencies, we are, nevertheless, most anxious to be of the greatest possible aid to our friends in the Drug Industry.

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thus to set up a job rate based on trade averages. This is the easy way certainly but again it is not always fair in certain localities to assess jobs on industrial averages. Certain jobs require a definite amount of training, a definite amount of experience, definite personal qualifications, such as patience and accuracy on an inspection job. Is it possible to evolve a formula which will fairly evaluate all factors which can be used as a yardstick in measuring the relative value of jobs? I have never found such a formula and in the instances where one has been established, you could easily shoot it full of holes. The way out might possibly be to establish, as I mentioned in this department before, standard trade rates for particular production operations or processes. Such rates might in particular instances be unfair, but they would have the advantage of eliminating doubt. Moreover, they would be of advantage in dealing with trade unions, the object of which seems to be to establish uniform national rates for similar work.

FORMULA CONCEALMENT

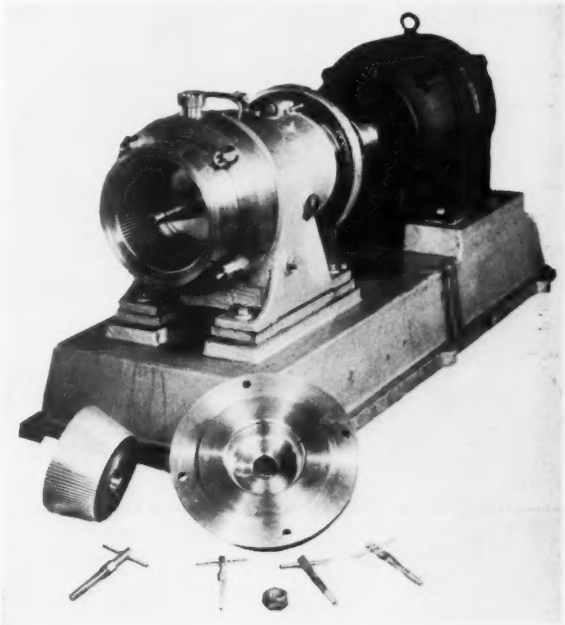
So far as common products are concerned, we have always felt that concealment of any kind is a lot of bunk, whether it applies to plants, processes, or formulas. This is in our opinion especially true when the products are common to the industry as a whole and when, in any case, the Government forces a declaration of the formula on the labels. It is advertising and merchandising which establishes the value of a product and no one ever yet succeeded in building a large business by endeavoring to copy established brands. That a product is "just as good" or "just the same" is never convincing to the ultimate purchaser.

There are cases, however, when an exclusive process or an exclusive formula confers a definite trade advantage in which case secrecy is essential. For example, manufacturers of raw materials, particularly fine chemicals, essential oils, preservatives, antispetics, and the like, have a definite reason for guarding secret processes. These products are profitable and confer a definite competitive advantage in particular fields. Moreover, they are not consumer products. Again in regard to consumer products, there are a few which serve specialized purposes such as hair dyes and a few types of medicaments, about the manufacturing processes of which, since they are unique, it is essential to be secretive. Almost everyone has some product or process which falls in either category, even though everything else they make consists of products, the manufacture of which is common knowledge.

It is amazing to us how in such instances manufacturers can be so careless. We have often seen formulas lying around where they were accessible to anyone who wished to steal or copy them. We have seen formulas in symbols which could not be identified lying with original containers of materials, the identity of which was plainly marked. In a couple of plants, however, extreme care was exercised to conceal the formulas and processes not only from outsiders but from their own employees as well. In one plant every material purchased for a particular product was purchased under pseudonyms which were placed on the original containers and on the invoices. The pseudonyms were carried through the plant on the formula cards. In still another plant where process time and temperature were important, the materials not only were identified by phony names but also special scales and special thermometers were employed. This is going rather to an extreme and there are few products and processes which justify it.

NEW COLLOID MILL

The adjacent photograph illustrates a newly designed Charlotte colloid mill manufactured by Chemicolloid Labs., Inc., 44 Whitehall St., New York. The outstanding characteristic of this new design is the ease with which it may be disassembled for cleaning. By



loosening four wing screws and a single nut, the head plate can be removed and the rotor withdrawn, thus exposing the entire chamber. This machine is suitable not only for liquid emulsions but also for creams, suspensions, and pastes. The clearance between rotor and stator can readily be changed so as to permit treatment of a wide variety of products.

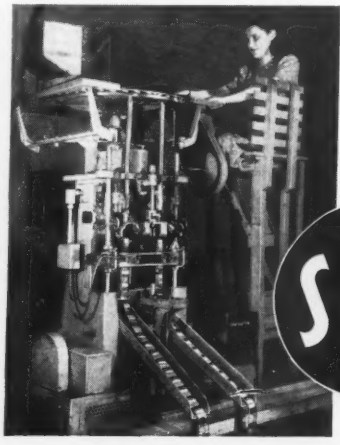
CAP FEEDER

I happened to be looking at an illustration of a feeding unit developed by the Detroit Power Screwdriver Co., 5377 Rohns Ave., Detroit, Mich., and it occurred to me that this little device which was built for feeding screws, nuts, rivets, washers, and similar items to

What is the BIG IDEA?

Is it to convey an instant *quality-impression* for a quality product?

We three did it for Schenley Distillers and the Laboratorios Gomez Plata and its affiliate company Trans-Pac Services.... We three: "Cellophane" which supplied the product visibility and the sparkle of these sales promotion packages; Trans-Pac Services who did the packaging; and the S & S TRANSWRAP machine which provided the means—formed, filled and sealed them at high speed and low cost.



A combination like this can translate your BIG IDEA into reality. About your package—ask Trans-Pac Services, 233 W. 14th St., N. Y. About the TRANS-WRAP—there is a folder fully describing its unique features, yours on request to STOKES & SMITH CO., 4912 Summerdale Ave., Phila., U.S.A.

S&S TRANSWRAP

A STOKES & SMITH MACHINE

FORMS — FILLS — SEALS — 60 OR MORE PER MINUTE

automatic screw drivers and threading machines could be used for feeding caps and plugs in semi-automatic or hand capping operations. It also could be used for feeding tablets into bottles, as, for example, in the manufacture of citrate of magnesia. The device consists of a motor driven hopper which is internally fitted with tangentially arranged baffles. The rotation of the baffles through the supply lying in the bottom of the hopper picks up the object to be fed and carries it around 180° to the intake point of the slide. At this writing I cannot tell you whether the device is adjustable but I am obtaining this information from the manufacturer.

CAFETERIA PRACTICE

I have had occasion recently to look into the practices followed in the trade in operating cafeterias. These practices vary; some plants merely provide a place in which employees may eat and they also provide coffee or tea and cream at company expense. Some companies provide a low cost standard meal changed every day and this meal usually consists of fruit juice or soup, one kind of meat, two vegetables, one desert or canned fruit, coffee, tea, or milk. In one case such a meal is given to factory workers whose rates of pay as compared with white collar workers is low at fifteen cents each. White collar workers are charged twenty-five cents for the same meal. Another firm charges a flat price of twenty-five cents for a standard meal while still others, especially those having a great number of employees, furnish a variety of foods at relatively low prices so that a factory worker can get a meal ranging from twenty-five to forty cents.

Out of this investigation came a slant on cafeteria operation which is worth careful thought. I found that the firms which provide a standard low cost meal do so at an actual loss which in a few instances runs into several thousand dollars a year. The general attitude seems to be that such losses really are in the form of an addition to the factory payroll and are justified on the ground that for many factory workers the best meal that the workers get during the course of the day is the one served in the plant. Since in plants the workers are our most valuable asset, it is certainly logical to feed them well even though it is done at a loss, and this theory of management is in line with the theory of vitamin feeding which was outlined in these columns some time ago.

One of the boys told me that before his company adopted a more liberal feeding policy, they found a worker actually suffering from malnutrition. Investigation of her circumstances showed that, although she earned a higher average salary than most factory girls, she was endeavoring to support a family on an altogether inadequate income. In consequence of this, neither she nor any member of her family was adequately fed and her work suffered accordingly. In this particular case the girl's condition served as an eye opener for the management and they instituted a more liberal policy of feeding employees. The standard price was lowered, the variety was improved, the quantity and quality increased, and employees were instructed to drink as much milk as they wished. Hence, a worker in this plant could get a meal consisting of soup, meat, vegetables, desert, and an unlimited quantity of milk, tea, or coffee. This policy exemplified an intelligent attitude on the part of the management.

It must not be forgotten that, regardless of how much factory workers are paid, they are not always likely to get—indeed are very likely not to get—well balanced meals at home. Raising wage rates, even by a substantial margin, will not automatically assure the worker of better meals because the majority of them are supporting or contributing to the support of a family and many of them, because of improvidence or lack of intelligent family environment, will spend wage increments on clothing, luxuries, or necessities other than food.

A few of the larger firms, especially in the metropolitan areas, contract with cafeteria operators to run their lunchrooms. Such operators are provided with equipment and services but are required to furnish their own labor and pay for their own food and also are limited to maximum prices for each portion. Cafeteria operators, however, are in business to make money and I question whether the operation of the cafeteria should be a source of profit either to the management or to an outside organization. For a good many years most firms that had cafeterias endeavored to operate them so as to break even. However, the most forward-looking firms are interested neither in profit or loss and are concerned only in providing a well balanced noonday meal for each worker at a price the worker can afford to pay.

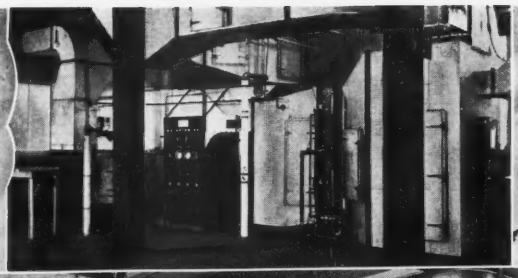
PETROLATUM DUMPER

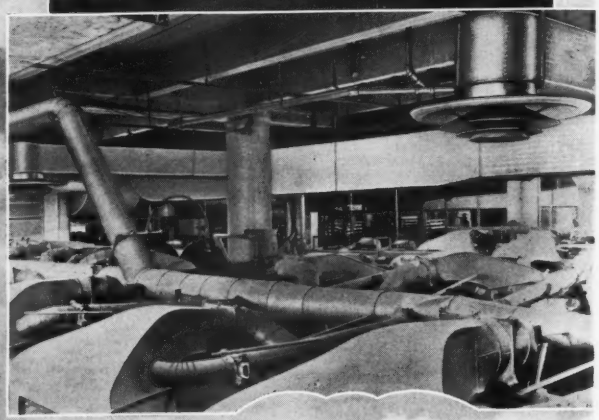
The Crewe Tool and Mfg. Co., Euclid Ave., Cleveland, Ohio, are offering a gadget called an extractor which consists of a motor driven helical screw designed for removing heavy materials such as soap, petrolatum, etc. from drums. The unit is designed for mounting on a drum, the helical screw being inserted through the opening. Rotation of the helix brings the material out of the drum to the discharge port.

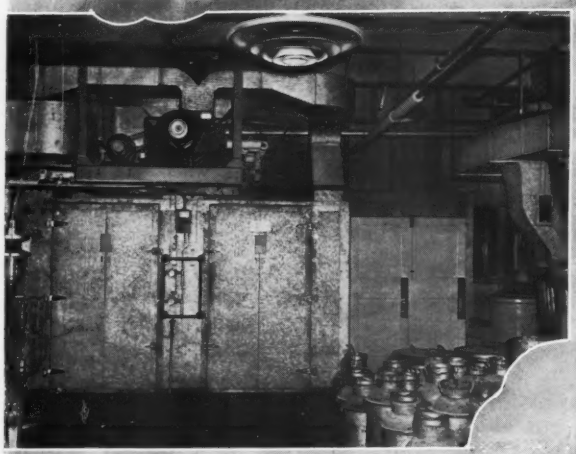
FILLING MACHINE

The Vol-U-Meter Co., Buffalo, N. Y., have introduced a new gravity filling machine. The unit consists of a row of seven glass measuring cups equipped with three-way valves to the bottles. The valves are operated by means of a foot pedal so that they open to receive liquid from an overhead source. Then they close when the measuring cups are filled and at the same time open to discharge the contents of the measuring cups into the containers placed on the table below. Uniform amounts in the measuring cups are assured by means of float balls in the overflow cups of each of the measuring units.

MODERNIZE YOUR DRYING







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in use by leading manufacturers

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Our 20 page catalog and other literature pertaining to drug drying and conditioning will be sent on request. Write now—without obligation.

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AIR DRIVEN MIXERS

The Mixing Equipment Company, Rochester, N. Y., has just announced the addition of two new models to their line of mixers. These two propeller type mixers, the AR-25 and AR-33, incorporate air driven motors and represent the first units with this type of propulsion offered by them.

The turbine type air motor is especially designed for agitator duty with built-in muffler for quiet operation and it has a low rate of air consumption. The mixers are built for operation at air pressures of from 60 to 120 pounds with the optimum operating range between 70 and 90 pounds.

Other features of these air driven models include a quick removable shaft for ease in cleaning, adjustable shaft length for various sizes of containers, and sturdy construction with extra ball-bearing removing whiploads from the motor bearing. A universal clamp permits mixer to be used at any angle in tank. This provides complete control over the mixing action including: intentional vortexing, mild swirl, or rapid bottom to top turn-over. A patent has been applied for on the hand tightening device while one has been issued on the ball and socket clamp. The mixers will attach to any container or vessel. A complete line of accessories, various types of impellers, support brackets, etc., are available for special applications, while a full range of metals and alloys for shafts and propellers permits use in any liquid.

Officials of the Mixing Equipment Company stress the fact that air driven mixers are not designed to supplant power driven models. In certain applications, though, they do possess definite advantages. An air motor is totally enclosed and non-sparking, thus eliminating hazards from this source, and it cannot be burned out by overloading.

In an air driven mixer a throttle permits varying speeds to match each mixing operation. In actual use the speed of the air driven motor will also vary with the load and with variations in air pressure, a definite advantage in some cases.

The "Lightnin" AR-25 operates at 1750 rpm. A 36-inch shaft with three inch propeller is standard. Weight is 26 lbs. The AR-33 has the lower operating speed of 400 rpm. and comes equipped with a standard 36-inch shaft. Propeller size is 7 inches. Weight of the complete mixer is 29 lbs.

COLOR COMPARISON

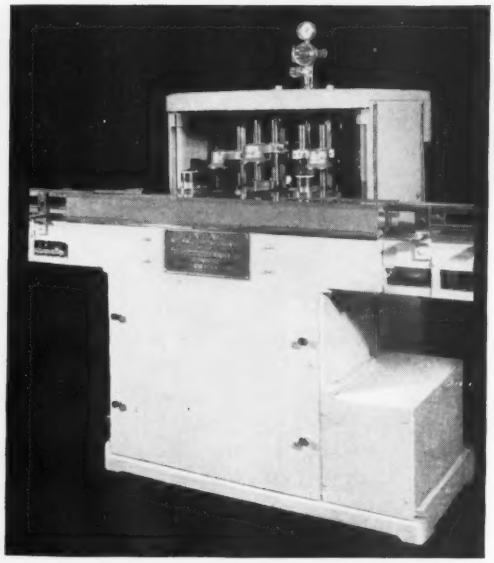
Whether you are in the cosmetic branch of the trade and wish to compare shades of face powder, rouge, or lipsticks, or whether you are in the pharmaceutical or chemical branch of the trade and wish to make color comparisons of pharmaceutical products, you will be interested in a new device called the Comparascope manufactured by the Graphic Arts Research Corp., 420 Lexington Ave., New York. This apparatus already has been used for color comparisons of materials such as textiles, paints, papers, and ceramics.

The apparatus looks like a small geographical globe. This globe constitutes a chamber from which all outside light is excluded and in which it is possible to obtain constant diffused illumination without shadows or reflections. The globe is fitted with a seven aperture eye piece, a light source, and sample mountings. An interesting feature of this device is that, since it weighs only six pounds, it can be carted around wherever it is needed and it is possible to compare the colors of an immovable surface such as a wall or ceiling with standard color chips or samples. It is possible in this equipment to change the viewing conditions. By turning the eye piece, the observer can study objects under ordinary artificial light and under artificial daylight at two different intensity levels. Moreover, by rotating the eye piece still farther, he can make a comparison under any one of three color filters.

UNSCRAMBLING TABLE

Those who operate bottling lines know that it is a problem to feed jars, bottles, and other containers into the intake conveyor of a line with a high rate of speed and without a great deal of effort on the part of the operator. A number of different types of unscrambling tables have been developed and I would like to call your attention to the most recent one. This compact unit is attached to the intake of your conveyor line. The unit consists of three moving belts which travel in opposite directions. It is provided with a tilting table on which the operator can invert the carton. The bottles thus strike the moving conveyor in a mass and, by reason of the opposed movement of these conveyors, the bottles are straightened out into single file for delivery to the intake of your packaging line. It is claimed that one operator can easily feed bottles at speeds up to 150 per minute and that with two operators the unit

DRY CLEAN YOUR *Containers*



. . . . . NOT WITH SOLUTION, BUT WITH AIR!

FIVE BASIC SANITAIR ADVANTAGES

1. DOUBLE CLEANING TIME
2. FLEXIBILITY
3. COMPACT DESIGN
4. SMOOTHER OPERATION
5. LONG LIFE

The Sanitair Automatic Rotary Cleaner is the most efficient method of air cleaning new containers. Compressed air is used as the cleaning medium in this machine, thus eliminating all traces of moisture in the cleaned container.

Containers are cleaned in this machine in an inverted position, assuring the removal of all foreign particles. Through the use of duplex cleaning stations, which are continuously and constantly in equal balance, the Sanitair is able to do twice the work in the usually required space.

Although a complete change of parts is very rarely required, it can be accomplished in ten minutes, when necessary.

This cleaner is extremely flexible, and can handle a wide range of containers whose finishes may vary from the smallest of AGST to the largest of wide mouth finishes.

A continuous and constant motion in one direction is used to invert containers, insert and remove cleaning tubes, and right and discharge containers from the machine. Speeds of up to 150 cleaned containers per minute are available on the Sanitair Cleaner.

For additional information about the cleaner, write for our Sanitair Bulletin which describes it in complete detail.

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WASHERS
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FILLERS

can be utilized to feed a line at 300 containers per minute.

SPRAY DRYING

Again I would like to call your attention to the spray drying apparatus built by Bowen Research Corp., Garwood, N. J. Spray drying is a very effective means of rapidly reducing liquids to powder. The feature about spray drying which I am sure a good many production men do not appreciate is that the spray can be accomplished at extremely low temperatures and at very high speeds so that the loss of vitamins and enzymes is negligible and other qualities are practically unimpaired. Another advantage of this type of spray drying is that the particle size of the dried product is controlled and is rendered free flowing. This condition of course improves the solubility or the absorbability of the dried product.

The Bowen unit depends for its effectiveness on a patented six inch atomizer running at a speed of 21,000 RPM. It is easy to appreciate how microscopically fine are the droplets of the fog in the evaporator at such tremendously high atomizing speeds. In this apparatus evaporation is created in an artificial vacuum resulting from the low vapor pressure of a hot drying gas. Thus the evaporation of the moisture actually creates a cooling effect within the particle. Such is the construction of the apparatus that the Bowen people contend that the temperature of the particles of dried materials is lower than that of the surrounding atmosphere. This method of drying has been used for such products as blood, milk, eggs, insecticides, fruit juices, soap, and a great variety of chemicals. It would be interesting to learn whether this method of drying could be applied to serums and other biological products. As a rule spray drying equipment has been used in the past for large scale operation but I understand that the Bowen people have small equipment units available.

STRIP CUTTER

Sprout Waldron Co., Muncy, Penn., have introduced a new rotary cutter especially designed to handle long strips of material such as roots and bark. The machine actually was designed for cutting strips of rubber. The housing of the machine contains a rotor 10" wide. This rotor carries five knives. The housing itself contains three stationary knives. Between these knives there are screens so that the ground product is readily discharged as it reaches the size small enough to pass through the meshes of the screen.

DRUM FILLER

Our chemical friends will be interested in a new drum filler made by Lugene Valve Co., Toledo, O. This unit is intended for filling fifty-five gallon drums, the filling of which can be done in two minutes according to the manufacturer. The filling is accurately controlled by means of a float operated solenoid valve. The unit automatically shuts itself off when the drum is filled.

COLORED CONCRETE

Many of us have had more or less disastrous experience in trying to paint concrete floors. The paint either wears off rapidly, exposing the under surface, or the alkali on the surface attacks the concrete and causes it to discolor or chip off. Wilbur and Williams Co., 348 West 42 St., New York, claim to have licked the problem by manufacturing a penetrating stain and a surface enamel which, applied together, does the job. The surface is first treated with the penetrating stain in an appropriate color. When this has dried, two coats of enamel are applied to the surface. The manufacturer claims that the composition of the dye protects the surface coating against chemical attack and, since the concrete actually is colored by penetration, any damage to the floor which breaks the surface coating is not conspicuous.

HUMIDIFIERS

Everyone who operates packaging equipment realizes the importance of humidifying paper stock of various kinds. The best way to do this is to keep labels, circulars, cartons, and other material in humidified warehouse areas. The Armstrong Machine Works, 841 Maple Street, Three Rivers, Michigan, are offering a small steam type humidifier consiting of a controlled steam trap and a small fan. One unit will keep about 25,000 cubic feet of space properly humidified at all times.

VERMICULITE

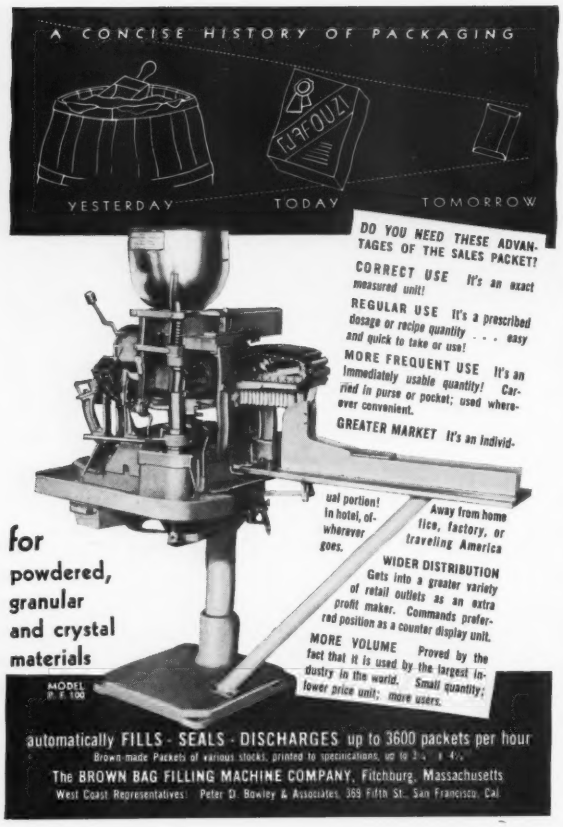
An interesting new building material has been developed at the instance of the Tennessee Valley Authority by Dr. William A. Scholes of the North Carolina State College. This product called Vermiculite occurs naturally in a variety of mica, leads of which are located in various parts of North Carolina and other southern states. This material, when substituted for sand in mixing concrete, forms a compound which can be nailed like a board without cracking. It also can be cut into pieces easily and the sawed edges are smooth. It should furnish an excellent roofing material as soon as it is commercially available.

LIQUID FILTER

The Carborundum Co., Niagara Falls, N. Y., have introduced a porous plate which is intended primarily to eliminate the gravel beds in water filter but it can be used for other filtration operations as well. The plates are made of fused crystalline alumina ceramically bonded. These plates are cleaned by back washing.

VULCANIZER

Those who use rubber or rubberized conveyor belts will be interested in a new vulcanizing unit just introduced by the B. F. Goodrich Co., Akron, O. The purpose of this small unit is to make it possible to repair gouges and cracks in belting without having to send the belts outside.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CORRECT USE It's an exact measured unit!
REGULAR USE It's a prescribed dosage or recipe quantity . . . easy and quick to take or use!
MORE FREQUENT USE It's an immediately usable quantity! Carried in purse or pocket; used wherever convenient.
GREATER MARKET It's an individual portion! Away from home in hotel, office, factory, or wherever traveling America goes.
WIDER DISTRIBUTION Gets into a greater variety of retail outlets as an extra profit maker. Commands preferred position as a counter display unit.
MORE VOLUME Proved by the fact that it is used by the largest industry in the world. Small quantity; lower price unit; more users.
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45 GALLON
CHANGE CAN
MIXER

For mixing standard batches of Ointment Bases, Deodorant Compounds, Tooth Pastes, Shaving Creams, and various similar preparations.

Cover over mixing can retards evaporation and eliminates dust.

Totally enclosed guards on all gears . . . anti-friction bearings . . . counter-balanced raising arm with locking clamp. Can be furnished with stainless steel cans and stirrers when desired.

ROSS Change Can Mixers are made in sizes from 2 to 150 gallons capacity.

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STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912

Of The Drug and Cosmetic Industry, published monthly at Pittsfield, Mass., for October 1, 1941

State of New York, County of New York—ss

Before me, a notary public in and for the State and county aforesaid, personally appeared Thomas R. Farrell, who, having been duly sworn according to law, deposes and says that he is the Editor of The Drug and Cosmetic Industry, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, Drug Markets, Inc., 101 West 31 St., New York, N. Y.; Editor, Thomas R. Farrell, 101 West 31 St., New York, N. Y.; Managing Editor, Elmer Sheets, 101 West 31 St., New York, N. Y.; Business Manager, Frazer V. Sinclair, 101 West 31 St. New York, N. Y.

2. That the owner is: (If the publication is owned by an individual his name and address, or if owned by more than one individual the name and address of each, should be given below; if the publication is owned by a corporation the name of the corporation and the names and addresses of the stockholders owning or holding one per cent or more of the total amount of stock should be given.) Drug Markets, Inc., Frazer V. Sinclair, Thomas R. Farrell.

3. That the known bondholders, mortgagees, and other security holders owning or holding one per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

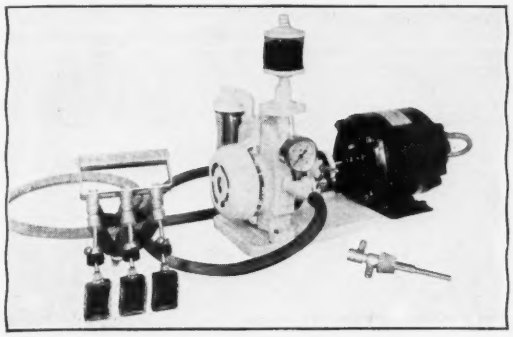
4. That the two paragraphs next above, giving the names of the owners, stockholders and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is (This information is required from daily publications only.)

Thomas R. Farrell, Editor.

Sworn before me this 30th day of September, 1941, Edward N. Mueller, Notary Public.

My commission expires March 30, 1943.



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It reduces power consumption as much as 75%, saves 50% or more in processing costs, cuts cleaning costs and eliminates the need of high-priced experienced operator.

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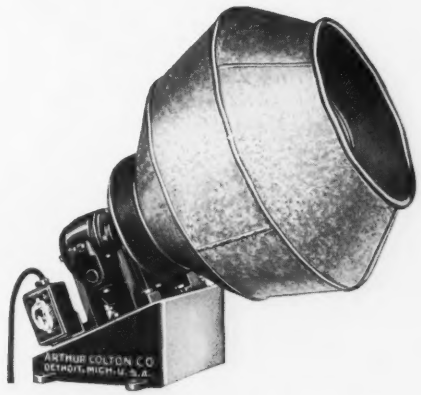
NEW COLTON BENCH TYPE COATING STAND

(MOTOR DRIVEN)



SPECIFICATIONS

¼ H.P., 1750 R.P.M., 110 V.—1 Phase Master Right Angle Geared Head Motor

Revolutions of Pan	**36 per minute**
Bench Space	**24″ x 14″ x 26″**
Approx. Net Weight	**100 lbs.**
Approx. Gross Weight, Boxed for Export	**175 lbs.**

THIS newly designed Bench Stand (Motor Driven) is far superior to the old Belt Drive from countershaft. The maximum diameter of Pan (either Copper or Galvanized Iron) recommended is 20″ diameter and pans are interchangeable on Stand.

This Motor Driven Stand lends itself particularly for small batches and especially as a teaching adjunct for Universities and Colleges.

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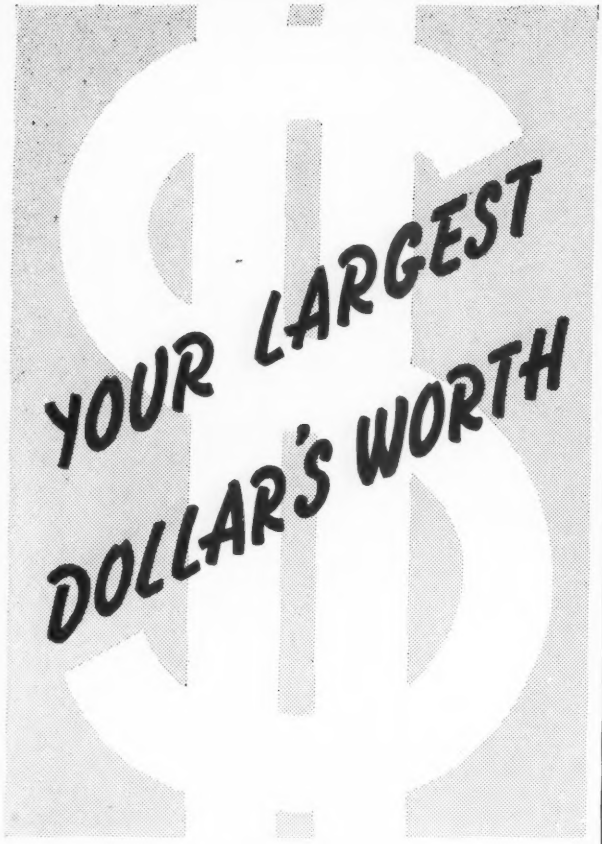

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RANCIDITY AND DISCOLORATION

The tendency of animal and vegetable fatty oils and fats, particularly unsaturated oils and fats, to undergo partial decomposition or become rancid in the presence of atmospheric oxygen is well known. The tendency towards rancidity persists even when the fats and oils are converted to soaps. It is known that the reaction of atmospheric oxygen with soaps formed from oils and fats is accelerated by the presence of catalytic agents in the soap such as the cations of iron, copper and other metals ordinarily present in small amounts. Oxidation products formed in the soaps appear to exercise a similar action. The undesirable effects resulting from the reaction of the soap with atmospheric oxygen are indicated by the development of rancidity, usually accompanied by an undesirable odor and streaking or discoloration of the soap. Such streaking or discoloration results from rancidity and may gradually appear in a bar of soap under ordinary conditions. Rancidification may be detected in its early stages by the loss of the natural soap odor.

Soaps formed of fats and oils containing material proportions of unsaturated fatty acids, are more particularly susceptible to rancidification because of their increased proportions of unsaturated components. It has been a common practice to hydrogenate a soap stock for the purpose of reducing the proportion of unsaturated components and thus increase the stability of the soap stock. However, stabilization of the soap stock by hydrogenation is not always practised as it may undeniably increase the time and cost of manufacture. Another factor limiting the use of hydrogenization as a solution for the problem of rancidity is that as the proportion of saturated components is increased the desirable solubility of the soap is decreased.

The incorporation of various tin compounds in soap has been suggested as a means of inhibiting rancidity and discoloration. It has been found, however, that the inhibiting properties of presently used tin compounds are not satisfactory with all types of soap, particularly as to effectiveness and duration.

For example, in the utilization of soap stocks having a greater tendency to dissolve in water, there is a difficult problem in obtaining a soap of the desired stability. The present trend towards more rapidly soluble soaps may make desirable a product containing material proportions of potassium soaps. However, with respect to the potassium soap, it has been found that the usual soap preservatives have generally an inadequate stabilizing effect. For example, the usual tin preservatives previously used with sodium soaps have been found to arrest the oxidation of the potassium soap only temporarily, and to be generally unsatisfactory for the production of a stable potassium soap, or a blend of such soap, free from rancidity with accompanying streaking or discoloration.

It has been found that alpha-stannic acid incorporated in soap exhibits unexpected properties as an inhibitor and stabilizer. When added to soaps in relatively small amounts alpha-stannic acid prevents or substantially retards rancidification of even the most unstable soaps and at the same time tends to stabilize the color ingredients of bleached soaps against the development of undesirable discoloration which customarily accompanies rancidification. The presence of alpha-stannic acid in colored soaps tends to inhibit undesirable changes in color, cast or brilliance of the soap upon storage, apparently indefinitely.

The mechanism of the stabilizing action of alpha-stannic acid is not fully understood. It may be, however, that the action involves the property of alpha-stannic acid of maintaining a finely dispersed colloidal form in the presence of moisture, and its property of forming very stable adsorption complexes with oxidation catalysts such as the heavy metal salts and hydrated oxides ordinarily present in small amounts in soaps. These salts and oxides act to accelerate the oxidation of soap and cause it to lose any brilliance of color it may have had.

Potassium soaps are relatively more susceptible to spoilage upon standing than the corresponding sodium soaps and this characteristic is undeniably intensified if soft, low-titer stocks are used. It has been found that alpha-stannic acid is particularly effective as a preservative for potassium soaps or mixtures of soaps including potassium soaps, and that it greatly exceeds in inhibiting and stabilizing effect such commonly used agents as stannic chloride. For example, in carrying out actual preservation tests on a soap containing 75 per cent. of sodium tallow

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soap and 25 per cent. of potassium coconut oil soap, a stock containing 0.2 per cent. of alpha-stannic acid remained unaffected after 21 days of heating at between 115° F. to 125° F. while the same stock containing 0.2 per cent. of stannic chloride and treated under similar conditions turned rancid after four days. Similarly a stock containing 0.2 per cent. of stannous chloride turned rancid after one day of the same treatment.

The amount of alpha-stannic acid to be added to the soap will necessarily be controlled in accordance with the amount of components in the soap stock tending to oxidize or become rancid, and the danger of any such contamination of the soap and other possible factors leading to increased oxidation of the soap constituents upon standing. It has been found that relatively small amounts of alpha-stannic acid may be used. Under ordinary conditions, amounts ranging from 0.1 per cent. to 1.0 per cent. of the soap stock and preferably from 0.2 per cent. to 0.4 per cent. may be used. The use of larger amounts of alpha-stannic acid gives an even greater improvement in the stability of the soap stock, but generally in an amount insufficient to merit the additional cost. While smaller amounts of the alpha-stannic acid are effective in most instances with relatively pure soaps, it is desirable to use amounts within the range specified to provide a reserve of complex-forming material effective to maintain the soap stable irrespective of any subsequent conditions which might also tend to promote oxidation.

In the manufacture of framed soaps, the alpha-stannic acid may be added to the soap in the crutcher. With milled soaps, the agent preferably is added to the soap mixture before the milling operation. Generally, however, the alpha-stannic acid may be added to the soap at any convenient stage in the manufacture where the stabilizing agent may be dispersed in intimate admixture through out the soap to obtain the desired uniformity of product. Incorporation of the alpha-stannic acid in the soap in the form of a jelly provides a most intimate dispersion of the agent throughout the soap mixture. However, the addition may be made to the soap in other forms with generally satisfactory results. Perfume, coloring matter and other ingredients of the soap may be added as desired.

Alpha-stannic acid is a relatively noncorrosive material as compared with stannic chloride and others of the tin compounds used as soap preservatives up to the present time. This characteristic of alpha-stannic acid facilitates handling of the material, and eliminates corrosive attack on the soap manufacturing apparatus. For instance, in the manufacture of milled soaps, it has been found that the stannic chloride soap preservative exerts undesirable corrosive action on the milling rolls, necessitating replacement and repair. This is not the case with alpha-stannic acid. *P.E.O.R.*

SULFADIAZINE FOR BURNS

Since January Pickrell has treated 15 patients with burns extensive enough to require hospitalization and 100 burned outpatients by the following method: While the accident room surgeon is scrubbing, the burned areas are sprayed with 3 per cent. sulfadiazine in 8 per cent. triethanolamine. This treatment allays pain, and a narcotic may not be necessary. The burned areas are not washed but simply sprayed, and scrupulous care and aseptic technic are exercised in the debridement of blebs and loose tissue. A heat cradle is used for the hospitalized patient. The burned areas are sprayed every hour during the first day, every two hours, the second day, every three hours the third day and every four hours the fourth day. By this time a thin, translucent eschar has formed and further spraying is not necessary. The progress of the healing can be followed through the eschar, and in second degree burns epithelial regeneration can be observed. In about ten days the edges of the eschar begin to loosen and to separate. Compresses of the sulfadiazine-triethanolamine mixture can be applied; sterile liquid petrolatum sprays followed by saline compresses allow the eschar to be removed in large sheets. In third degree burns the eschar is allowed to remain for at least two weeks. Patients with second degree burns not involving more than 20 percent of the body surface are not hospitalized. Debridement is carried out and they are observed in the accident room for at least two hours, during which time the burned areas are frequently sprayed with the sulfadiazine-triethanolamine solution. Before discharge the lesions are covered with sterile petrolatum gauze or an ointment of 5 per cent. sulfadiazine and 8 per cent. triethanolamine in a stearin base. No eschar forms unless the burned area is exposed. These patients return in twenty-four or forty-eight hours, when the burns are again sprayed several times and then dressed. This procedure is carried out on return visits until the burned areas are healed. The author believes that the spray does not coagulate or destroy normal tissue. In the opinion of the surgcial staff, the burned areas of the 115 patients healed more rapidly than with any form of treatment previously used at the Johns Hopkins Hospital. There were no infections among the outpatients and only two among the 15 extensively burned patients. The two infections occurred while the eschar was being compressed preparatory to removal. The only toxic reaction occurred in a child of 4 with second and third degree burns that involved more than 80 per cent. of the body surface. The child entered the accident room in a dying state and died within forty-eight hours. *Bull. Johns Hopkins Hosp. vol. 69, p. 217.*

VITAMIN C AND EXERTION

Brunner calls attention to the fact that the marching contest of the Swiss army, with full pack, over a distance of 41 kilometers, with a grade of 500 meters, makes great demands on the physical endurance of men. He studied the physical condition of 10 men who were subjected to an intensive preparatory training. To obtain optimal physical performance capacity, 300 mg. of a vitamin C preparation was given daily until the vitamin was excreted in the urine. When this took place the daily dose was reduced to 200 mg. The saturation experiment disclosed vitamin C deficiencies of from 600 to 1,800 mg., on the average of 1,210 mg. It is noteworthy that two men who were abstinents had the lowest vitamin deficiency. During the period of training the daily vitamin C requirement was 200 mg. Muscular pains brought on by intense training subsided under the influence of vitamin C medication. Eight of the 10 men were able to take part in the marching contest. Their performance was satisfactory. All completed the contest. Whereas many of those who did not receive vitamin C developed muscular spasms in the course of the march, only one of the author's men manifested this symptom, and for only a brief period. After a short rest period (two hours) the physical and mental fatigue was slight. All the men who were given vitamin C expressed satisfaction with the effect. They felt fresher, stronger and better able to stand the exertion. Especially gratifying was the efficacy of the vitamin against muscular pains. *Schweiz. Med. Woch. vol. 71, p. 715.*

Perfumers Shelf

SPICE OILS

Ginger oil, which has the characteristic aroma of ginger, but is completely devoid of the pungency of the spice, is of limited utility. Poucher states that "the addition of this oil in traces to oriental perfumes will give a peculiar effect which is unobtainable with any other material, the result obtained being extremely difficult to imitate."

Angelica root oil is of considerable interest to the perfumer, and is deserving of increased attention. Smelt in a concentrated state, the odor of the oil recalls that of pepper oil. This is owing to the fact that it is rich in the terpene, *d*-phellandrene, whose odor resembles that of the terpene-sesquiterpene constituents of the latter oil. In a high state of dilution, however, the odor of phellandrene becomes more or less imperceptible, and is replaced by a delightful "ambered" odor, due, in part if not wholly, to the lactone of 15-hydroxypentadecylic acid. This is one of the most powerful aromatic substances known to science, power being measured by the reciprocal of the dilution at which the odor becomes imperceptible. The synthetic counterpart, of course, is the product "Exaltolide." In view of these facts, the production of a terpeneless angelica root oil should prove worthy of attention.

Calamus root oil has a very agreeable sweet odor. Used to some extent in the compounding of chypre and other fancy perfumes, the oil is one which might well find wider uses in perfumery.

Orris oil is too well known to perfumers to require detailed treatment.

The most important oils derived from bark spices are cinnamon bark oil and cassia oil. Their odors are similar, insofar as the aroma of cinnamic aldehyde is predominant, but in cinnamon bark oil this odor is pleasantly modified by the aromas of other constituents, while cassia oil, the odor of the cinnamic aldehyde present is somewhat marred. Cinnamon oil is a very important constituent of many oriental perfumes, while cassia oil, owing to its coarser aroma, is more suitable for soap perfumery.

Sassafras oil is also worthy of mention in this connection. In virtue of its content of safrole, it forms a useful material for the compounding of soap perfumes, while from this substance, heliotropin can be made, though at a relatively high cost.

Massoia bark oil of Australian origin is also of interest, as in some compositions, *e.g.*, bay rum, it may be usefully employed as an alternative to pimento oil.

The clove may be classified as a flower spice, since the spice consists of the unopened flowerbud of *Eugenia caryophyllata* Thb. The essential oil content is very high, and the oil is unquestionably the most important of all spice oils to the practical perfumer.

Rich in eugenol, clove oil provides the starting point for the production of the finest isoeugenol, whose odor, more flowery than that of eugenol itself, forms the basis of all modern carnation perfumes. Clove oil itself, however, may be usefully introduced into carnation perfumes, and was, at one time, extensively used for the purpose.

One of the most important of the fruit spices is vanilla, which does not yield an essential oil, as its aromatic constituents are crystalline. The uses of vanilla and of vanilla resinoids are well known to perfumers and do not call for detailed mention here.

Pepper is another highly important fruit spice. The oil is very little used in perfumery, but a trace is most definitely advantageous in carnation perfumes, and the oil is also employed in the compounding of carnation compounds for soaps.

The so-called aromatic seeds all fall in this group, and provide some oils of interest to practical perfumers. Caraway oil finds application in soap perfumery as already indicated, and might, in view of its scarcity, be replaced as a wartime measure, by dill oil, the odor of which is similar. Fennel oil is also useful as a soap perfume. Celery oil may be introduced, in traces, with advantage in jasmine compositions, the odor of jasmine being stated to resemble that of celery, while coriander oil is of considerable interest to the perfumer. This latter oil is rich in the dextrorotatory variety of linalol, and has a lemon-like odor in which a sage-like note can be observed.

Pimento oil finds its chief application in the scenting of bay rum. It is also useful in traces on carnation perfumes; and, owing to its composite spicy fragrance, might find further utility in the compounding of various spicy perfumes.

Three oils derived from seed spices call for mention, namely, cardamom oil, nutmeg oil, and ambrette seed oil.

Cardamom oil is expensive and relatively little used in perfumery. Traces, however, are useful for giving a note of freshness to muguet compounds. Even smaller traces may be employed for giving character to jasmin and chypre perfumes, and to colognes.

Nutmeg oil requires using with discretion; but traces are useful for obtaining spicy notes in various perfumes.

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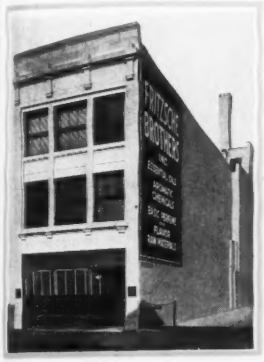

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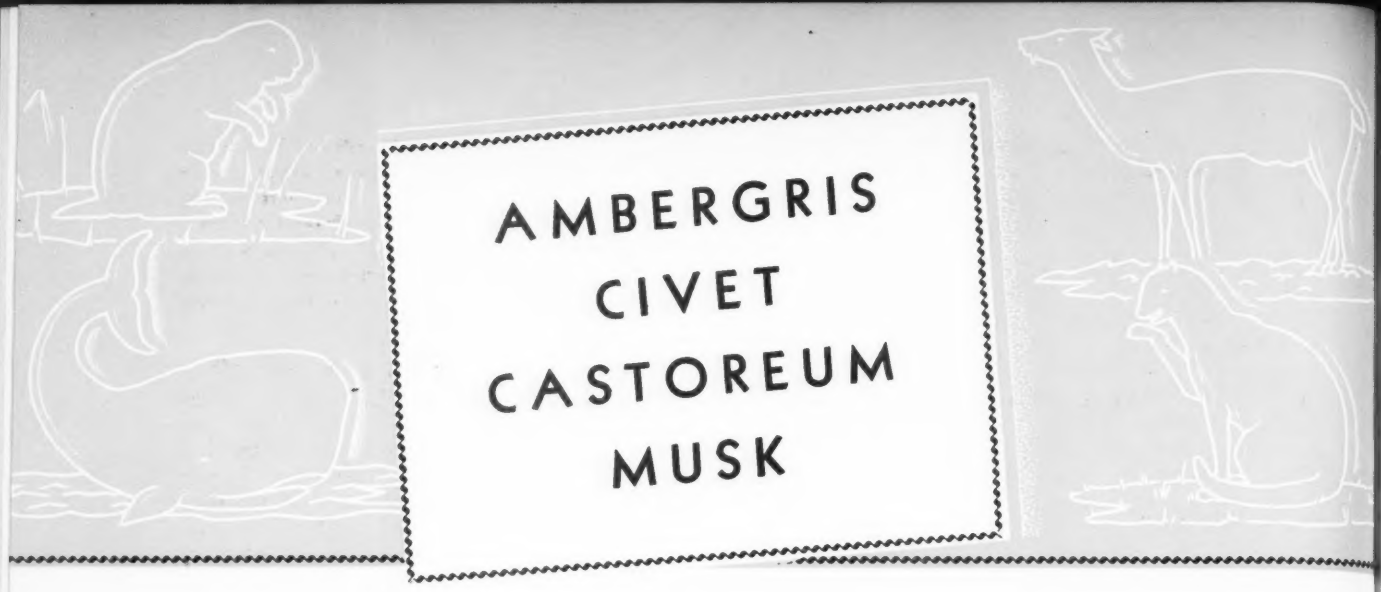

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Ambrette seed oil is very valuable, but, for some reason, appears to have been rather neglected. The crude oil needs purification from the fatty acids it contains. *P.E.O.R.*

CARNATION

The base for the various synthetic carnation preparations is isoeugenol, possibly with an addition of eugenol. An addition of benzyl isoeugenol is extremely valuable as it not only increases the true carnation character but also adds to the fixative power. Naturally, the degree of purity of the benzyl isoeugenol used is very important in this connection. Benzoin Siam and, even more preferably, its resinoid, are used for softening effects and for depth, along with musk and amber. Additions of linalol give interesting effects and sometimes up to as much as 15% may be added. The flowery note will be enhanced by additions of phenyl ethyl alcohol, rose otto, jasmine, and ylang ylang. A trace of pepper oil and possibly oil petitgrain will greatly enliven the compound, and sometimes it is found advantageous to add small quantities of oil carrot seed and estragon. It is, however, necessary that these additions are most accurately gauged, for if they are present in too large a quantity a very disagreeable effect will be produced. Among other possible additions should be mentioned heliocrete, phenylacetic aldehyde, amyl salicylate, hydroxy citronellal, alfa ionone and terpineol. As for aldehydes in this connection, an addition of hydrocinnamic aldehyde may be recommended, but should not exceed 1%.

SULFATHIAZOLE OINTMENT

A 5 per cent. sulfathiazole ointment was prepared by suspending finely powdered sulfathiazole, which had been sifted also through bolting cloth to remove large crystals, into equal parts of hydrous wool fat and vanishing cream.

Sulfathiazole ointment was used in the treatment of 69 patients with various cutaneous infections. It appeared to be efficacious in the treatment of infected infantile and adult eczema, seborrheic dermatitis, impetigo, acne vulgaris, bacterial folliculitis and furunculosis.

No toxic effects were observed. In 6 of the 8 infants that received applications over one-half of the body surface three times a day the concentration of sulfathiazole in the blood ranged from 2.0 to 3.5 mg. per hundred cubic centimeters. The children and adults that received applications of sulfathiazole ointment over localized areas of the body did not absorb sufficient sulfathiazole to produce a detectable quantity in the blood, although the ointment was applied at frequent intervals throughout the day for prolonged periods.

A number of the children with infantile eczema became reinfected when a 5 per cent. carbonis detergens ointment was substituted for the sulfathiazole ointment. Sulfathiazole was then incorporated in the carbonis detergens ointment, with definite and persistent improvement in the eczema and in the infection.

Thirty-five patients with acute vesicular poison ivy dermatitis, 33 patients with cuts and 4 patients with small second degree burns received local applications of sulfathiazole ointment. The lesions in each patient healed without infection. *E. L. Keeney, R. H. Pembroke, F. E. Chatard, J. M. Ziegler, J.A.M.A. vol. 117, p. 1415.*

NICOTINIC ACID THERAPY

Sydenstricker and Cleckley used nicotinic acid in the treatment of 29 patients with symptoms of severe active psychosis but with no signs of pellagra. The predominating psychotic changes were manic excitement, delusions, hallucinations, disorientation and delirium tremens. Usually the response to nicotinic acid was prompt, often spectacular, whereas other previous treatment was of no benefit. The good response of 6 additional patients with various possible contributing causes would seem to leave little doubt that the real cause of the psychosis was an avitaminosis. The possible contributing causes were peptic ulcer in 1, fracture of the femur in 1, mild pneumonia in 1, use of alcohol to excess in the past in 2 and a mild sciatica in 1. The prompt and striking recovery of 3 patients showing typical psychosis of delirium tremens also leaves little doubt that the psychosis was due primarily to avitaminosis. Seven of the 29 patients experienced improvement only. The nicotinic acid therapy did not furnish a permanent solution for their psychiatric problem; 1 remained psychoneurotic and the others showed persistent intellectual and emotional impairment which apparently was related to cerebral arteriosclerosis, senility or other factors. The chief psychiatric problem of the other 22 patients was solved by the vitamin therapy. The author's experience leads them to believe that the symptoms of many patients whose psychiatric status suggests toxic psychosis or exhaustion delirium may be relieved by nicotinic acid therapy. In such patients, and also in those who show unexplained clouding of consciousness, a therapeutic trial of nicotinic acid may be the only means by which to determine whether or not the psychosis is due to avitaminosis. *Amer. J. Psych. vol. 98, p. 83.*

pH OF NASAL SECRETIONS

Fabricant believes that an excellent nasal vasoconstrictor is 1 per cent. ephedrine hydrochloride in physiologic solution of sodium chloride, with a *pH* of 5.9. The generally recognized therapeutic measures for patients with acute rhinitis or acute rhinosinusitis are sufficient rest, adequate sleep and external heat for the relief of pain. Each of these measures produces uniformly a single nasal *pH* phenomenon—acidity. If an operation is required later, when the acute symptoms disappear and the nasal *pH* range is restored to a normal, slightly acid status, it will be performed at an elective time in a completely acid nasal environment. In view of the significance of the *pH* of nasal secretions in situ it is suggested that every nasal vasoconstrictor prescribed and sold should satisfy two basic physiologic requirements: 1. It should restore and maintain normal ciliary activity. 2. It should be slightly acid with a *pH* value within the normal *pH* range of nasal secretions in situ; i.e., between 5.5 and 6.5. The ciliary factor without the *pH* factor is but half of the problem of applied nasal physiology. *Arch. Otol. vol. 34, p. 297.*

INJECTION GUM ARABIC

Saline infusions for blood transfusion are not always acceptable. There are occasions when a colloidal liquid is necessary and gums are used in preference to gelatin since they can be sterilized. However, they mold and must frequently be made fresh. Gum solutions require gum arabic and physiological (0.859%) sodium chloride solution in redistilled water, in addition to any other substance to be introduced. The purity of the gum must be such that it contains no foreign gums, no starch or dextrin. Sterilization at 115° for 30 minutes is sufficient for fifteen days' preservation. A 6% solution is most practicable; the solution must be filtered twice and the *pH* should be, as near as possible, 6. Principal indications for its use are shock, eclampsia and nephrosis. *F. Pablo Rey and Angel Rebello. Rev. Med. Cienc. Afin., 2 (1940) 40.*

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This acetylated derivative, far from being inactive, is a well-tolerated, therapeutically effective drug.

Sulfacetimide reaches this country from England. Among the first published clinical reports on the compound was an article in *Lancet* last February written by Dr. R. Marinkovitch. He administered the drug to 100 male gonorrhea cases. In 25 per cent. of the cases smears were negative on the second day; in 61 per cent. of the cases smears were negative on the third day; in 12 per cent. of the cases smears were negative on the fourth day; and in the remaining 2 per cent. of the cases smears were negative on the fifth day. A total cure-rate of 91 per cent. was achieved.

He found it more readily absorbed than other sulfonamides, a higher concentration in the blood was achieved by the same dosage as was usually given of other sulfonamides, and a higher proportion of the drug was eliminated in unconjugated form. He found it well tolerated: only one case in the 100 developed a morbilliform eruption of the skin that lasted 24 hours; no cases showed fever, nausea, or headaches.

At Johns Hopkins University, Baltimore, the drug has been given extensive trial at the James Buchanan Brady Urological Institute. Drs. Young, Hill, Jewett, and Satterthwaite, in the *Journal of Urology* for June 1941, reported striking results, *in vitro*, on *Staphylococcus aureus*, *Gamma Streptococcus fecalis*, *Echerichia*, *Aerobacter*, and *Proteus*, all of which are important organisms in urinary infections. They used it clinically on 105 cases of gonorrhea, chronic urethritis, and miscellaneous urinary tract infections and found it effective with no cases of leukopenia and no urinary suppression. Doses of 4 Gm. a day produced no headaches or general malaise but doses of more than 6 Gm. produced some reactions.

Drs. Welebir and Barnes, of Los Angeles, reported to the recent Cleveland meeting of the American Medical Association that they had used sulfacetimide in 200 cases of bacillary urinary tract infections and found it superior to other sulfonamides. They reported 85.5 per cent. of their patients were cured and 12.5 per cent. showed improvement; 80.9 per cent. of the cases which had resisted treatment with sulfanilamide were cured with sulfacetimide; 73.3 per cent. of mandelate-resistant cases were cured; and 100 per cent. of the sulfathiazole-resistant cases were cured.

Sulfacetimide is available in the form of a white, crystalline powder; odorless; slightly acid taste; melting point, 181°-182° C.; solubility at room temperature, 1 in 100. It is offered in 0.5-Gm. tablets. In urinary tract infections 4 Gm. per day are given for the first 3 days, 3 Gm. per day for the second 3 days and 2 Gm. per day for 4 days. Each of the daily doses should be divided into four parts. In acute gonorrhea, 4.5 Gm. are given daily for 7 days.

POTASSIUM THIOCYANATE FOR HYPERTENSION

Caviness and his associates used potassium thiocyanate for the treatment of 120 hypertensive patients. The results in 68.9 per cent. were good (a reduction of more than 15 per cent. in the systolic and diastolic pressure), fair in 11.5 per cent. (a reduction of more than 10 per cent.) and poor in 17, or 19.6 per cent. (a reduction of less than 10 per cent.) The authors recognize the fact that potassium thiocyanate is not a cure for hypertension, yet it produces satisfactory reductions in pressure, stabilizes the pressure at a safe level, apparently frees the patients from the danger of vascular crises (apoplexy and cardiac failure) and with reasonable care minimizes the danger of attacks of angina of effort. The nature of the active pressor substance in the blood is still not known. Five grains (0.32 Gm.) of potassium thiocyanate daily is the initial daily dose after breakfast. This dose is continued with the slightly limited diet and with a sedative for several weeks, during which time the concentration of potassium thiocyanate in the blood is determined once a week or more often. In some cases as the blood pressure drops it is preferable to decrease the dose rather than to stop the drug. Many patients will show a return to normal blood pressure after a few weeks of treatment and a blood potassium thiocyanate concentration little if any above the normal level for patients not on treatment. Some patients may require an increase in the dose. The authors do not increase the dose until the pressure has stabilized itself at the lower level effected by the

Thanksgiving

was established as an American custom by the Pilgrims in gratitude for the liberty of conscience they found in the New World. Today, with our country engaged in a great effort to help safeguard that liberty for mankind, let us all cooperate wholeheartedly so that as the years roll on, we and those who carry on after us may have continuing cause for THANKSGIVING.

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initial dose of thiocyanate. The reasons are that (1) it is not advisable to reduce the pressure too rapidly, as too rapid reduction tends to produce headaches; (2) it is not advisable to make any drastic reductions in pressure because, if the systolic pressure drops too near the usual diastolic level, circulation may not be adequate, and (3) there is a cumulative action of this group of drugs, nitrite if it is being used. Furthermore, several days or weeks are required for full effects, and increasing the dose before a full effect has been secured would produce a more rapid drop in pressure than would be anticipated. The authors attempt to treat their patients with as low a blood potassium thiocyanate level as possible. Often satisfactory results were secured with relatively small increases in the blood levels of potassium thiocyanate. They rarely found it necessary to raise the potassium thiocyanate level above 9 mg. per hundred cubic centimeters of blood. Headaches, weakness and dizziness are relieved rapidly. The feeling of well being associated with the treatment is often quite rapid and may be independent of the response of the blood pressure. Tolerance to the drug has not developed. *N. C. Med. J. 1941, vol. 2, p. 283.*

SULFANILAMIDE FOR PERITONITIS

Kinney placed fine granular powder of sulfanilamide in the peritoneal cavity of 45 patients. The powder was first sterilized in a dry oven at 120 C. for thirty minutes. This did not alter its crystalline powdery form. For patients with generalized peritonitis 10 Gm. of the drug was used for the average adult of 150 pounds (68 Kg.). Age and weight modify dosage. For the child from a fourth to a half of the adult dose should be satisfactory. The drug was poured directly from the test tube in which it was sterilized into the abdomen, and it was spread as widely over the viscera and peritoneum as was possib'e. After the peritoneum was closed a small amount of the original 10 Gm. which was left in the test tube was sprinkled in the tissues of the abdominal wall. The wounds of all but 4 patients were closed without drainage. The recovery of patients whose wounds were closed without drainage was more rapid, their sulfanilamide blood level was higher and generally their convalescence was less stormy than those of whose wounds were closed with drainage. The high postoperative fever usually seen in generalized peritonitis was not encountered, and the temperature usually reached normal between the third and the sixth postoperative day. Duodenal drainage was necessary for only 7 patients. The tissues of the abdominal wall showed a tendency to heal much more rapidly than when sulfanilamide was not used, and it apparently promoted healing of the wound. There were no severe toxic symptoms or complications. Of the 45 patients treated 18 had ruptured appendixes, 2 intestinal perforations from gunshot wounds, 1 an intestinal perforation from a fish bone, 1 a ruptured diverticulum, 4 gangrene of the small intestine with resections of from 2 to 6 feet of intestine, and 19 had tubo-ovarian abscesses with free pus. The only death of the series, giving a mortality of 2.2 per cent., was among the patients with ruptured appendixes. *S. C. Med. J. vol. 37, p. 137.*

SULFONAMIDES IN WOUNDS

After inserting a sulfonamide compound into experimental wounds, Hawking determined its concentration in the cavity of the wound adjacent to the site of its deposit, in the distal parts of the cavity and in living and dead tissue around the edges of the wound. He found that sulfanilamide will travel quickly from one part of the cavity to another and that it will diffuse slowly through dead tissue but that its local pebetration into tissue with an active intact circulation does not extend more than 2 or 3 mm. The other sulfonamide compounds produced lower concentrations in the distal parts of wounds, the order of diminution being sulfathiazole, sulfanilylguanidine, sulfadiazine and sulfapyridine. Both sulfathiazole and sulfapyridine diffuse through dead tissue only at a slow rate and they resemble sulfanilamide in their restricted penetration into tissue with an intact circulation. The author concludes that (1) sulfanilamide will probably travel from the central cavity of the wound down into the crevices; when the wound is being dressed the drug should be well distributed; (2) sulfanilamide will penetrate slowly into fragments of dead tissue, and (3) it will not penetrate far into tissue with an intact circulation. Such tissue is reached more quickly by oral or intravenous medication. The disadvantages of sulfanilamide are rapid disappearance from the wound and lower bacteriostatic activity. Sulfathiazole persists in the wound for a longer period and its bacteriostatic activity is much higher, but it is expensive and of lower concentration and diffusibility. Sulfapyridine possesses no advantage compared with sulfathiazole but has the disadvantage of still lower concentration and of persisting in a wound so long that it might act as a foreign body. There is little indication that sulfanilylguanidine and sulfadiazine are any more suitable for local therapy than sulfanilamide or sulfathiazole. Sulfanilamide will probably be used most widely; it might be advantageous to reinforce it by adding from 10 to 50 per cent. of sulfathiazole to it. The actual proportions should depend on experience and economy. *Lancet, 1941, p. 786.*

GONORRHEA TREATMENT

Deakin and his associates treated 519 unselected cases of male gonorrhea with seven different chemotherapeutic agents. Their conclusion is that sulfathiazole appears to be the most effective drug at present on the market for the treatment of male gonorrhea. It is well tolerated, relatively nontoxic and induces noninfection rapidly. Their comparative study of sulfanilamide, sulfapyridine and sulfathiazole indicated that 4 of 20 men could be reasonably expected to be cured at the end of a week when treated with a moderate daily dose of sulfanilamide combined with mild local therapy. Two Gm. of sulfapyridine daily for ten days without local treatment cured 15 of 20 men. On the other hand, 19 of 20 men will be cured at the end of a week by the sole oral use of 20 Gm. of sulfathiazole over a period of five days. *Am. J. Public Health, vol. 31, p. 682.*

La Towsky and his co-workers used sulfapyridine in the treatment of 87 men with gonorrheal urethritis. Twenty-five of them defaulted, leaving 62 who were followed until cure or failure resulted. Of the 57 patients who were eventually cured by sulfapyridine, 14 had complications; 9 epididymitis, 3 balanoposthitis and 2 arthritis. All patients received the drug two, three or four times daily. The average dose was 23.5 Gm. given over an average of eleven days. Complications during treatment developed in 3 patients: epididymitis in 2 and periurethral abscess in 1. These 3 patients were not fully cooperative. The time elapsing between the disappearance of the symptoms and the last positive culture averaged seventeen and seven-tenths days and ranged from two to fifty days. This interval constitutes a carrier state. *Am. J. Syph. vol. 25, p. 445.*

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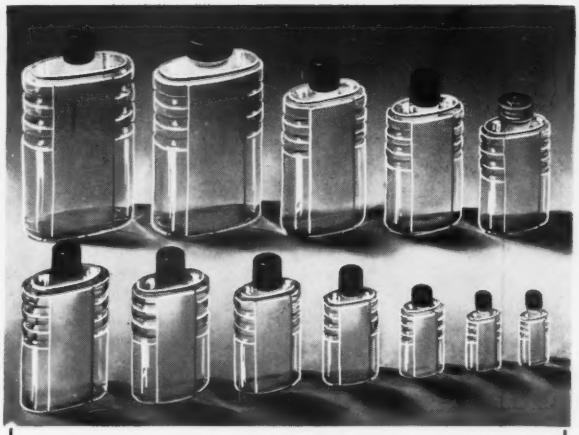

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Must the works "manufactured by" or "distributed by" appear directly above the manufacturer's name or can it appear elsewhere or not at all?

Where must the directions appear? Detroit.

The manufacturer's name and address must appear on the most prominent label, which is usually the front label. The address may be just the name of the city if that will enable mail to reach the manufacturer.

Weight of contents should be on the front label and is generally placed either directly above or below the manufacturer's name.

The address of the manufacturer should appear along with his name.

Wherever the company name appears "distributed by" should also appear, if you do not manufacture. If, however, you are an actual manufacturer the words "manufactured by" may either be put on or left off of the label.

Directions may appear on either front or back label as you please.

AERATED OINTMENT: I am making an ointment but the finished product is full of air bubbles. How can this air be eliminated? A self addressed envelope is enclosed for your early reply. Chicago.

Aeration ordinarily takes place as a result of too vigorous stirring of a liquid mixture, and may be avoided by reducing the speed of the agitator or sometimes changing its shape. More simply, however, melt the ingredients together and allow them to stand in a melted condition until practically all the bubbles have risen to the surface. Skim and repeat this procedure until no more air is separated from the melted mixture.

HAND LOTIONS: At the present time we are interested in formulas for two types of hand lotion, a honey and almond type which is a white emulsion, probably containing a small percentage of gum tragacanth along, with some lanolin emulsified with triethanolamine and stearic acid, perfumed to suit. This emulsion should be very stable. The other type of hand lotion we are interested in is a glycerine rose water type. The particular one I have in mind is translucent in appearance and colored red. On this one I only have a faint idea of its ingredients. It is probably also a gum tragacanth solution with a very slight amount of other materials in it. Inclosed you will find a self addressed envelope in which I hope you can supply the percentages necessary for the above formulas. Chicago.

The glycerine rose water hand lotion you have in mind is very simply made. Mix one part of powdered gum tragacanth with about five parts of alcohol and pour this into 95 parts of the active lotion mixture which may consist of glycerine and rose water in almost any proportion, usually fifty-fifty.

The emulsified hand lotion is a standard formula along usual lines.

Stearic acid	2.0
Cetyl alcohol	1.0
Lanolin	1.0
Triethanolamine	0.5
Tragacanth	0.5
Alcohol	5.0
Glycerin	5.0
Water	85.0

The tragacanth is mixed with the alcohol and poured into half of the water. Triethanolamine and glycerin are dissolved in the rest of the water and heated to a temperature of 60° C. Meanwhile, stearic acid, cetyl alcohol and lanolin are melted together and heated to the same temperature and poured into the triethanolamine solution with stirring. Stir until cold and then add the tragacanth mucilage. About one-tenth of one per cent. preservative is dissolved in the alcohol and perfume is added when cold.

PERMANENT WAVE SOLUTION: I wish to manufacture an oily permanent wave solution and to get the proper cloudiness in the mixture, I add sulfonated olive oil and oleic acid. After a few days, however, the oil separates and floats to the surface of the mixture. I should appreciate any suggestions you may have to offer for overcoming this trouble. Brooklyn.

The sulfonated oil in your mixture is unnecessary, since it has little emulsifying power in your mixture. Make a mixture of 10 parts of oleic acid with one part of sesame oil, and add one ounce to each gallon of solution. This will give the milky appearance you desire.

QUESTIONS

SHAVING SOAP: We are trying to make a shaving bowl by the cold process and have tried two formulas. In each case, however, our soap is very caustic and too irritating for use. If the strength of the lye is reduced, the soap is then too soft. Can you give us any indications for improving our product? Mexico City.

Reduction of the lye concentration in your formulas results only in improper saponification. It is possible under some conditions, with accurate analysis all the way, to use exact amounts of fats and alkalies to obtain a reasonably neutral soap. It seems to us, however, far better to make the product as you now make it, using the same formula, and then neutralizing excess alkali by the addition of proper amounts of boric or oleic acids.

THICKENING LOTION: We have a foundation lotion formula based upon stearic acid, mineral oil, and triethanolamine, along with a small amount of almond oil. Is an anti-oxidant necessary in this formula? We should like to make this lotion somewhat thicker and wonder if the addition of tragacanth will serve this purpose. Indianapolis.

Any formula containing a vegetable oil such as almond oil, especially in finely emulsified form, must contain an anti-oxidant to guard against rancidity. The product you mention in your letter is unknown to us, but one tenth of one per cent. of hydroquinone has a good reputation for effectiveness. About half of one per cent. of tragacanth added to your formula (being made into a mucilage with half of the water) will have the thickening effect you desire.

DENTURE CLEANER: Can you furnish me with the name of the chemical used in various artificial teeth cleaning preparations now on the market? New York.

Trisodium phosphate available from your chemical supplier is used extensively in denture cleaning preparations. It may be used as is, or is more often mixed with an equal volume of salt or sodium carbonate.

pH DETERMINATION: Is there some simple method of approximating the pH of raw materials and finished cosmetic products? We have been using red and blue litmus paper to determine neutrality and have attempted to approximate actual pH by the rapidity of color change in this indicator paper. We should like if possible, to use a somewhat more accurate method than this. San Francisco.

Your method of pH determination is so crude as to be virtually worthless. If you will get in touch with one of your local laboratory supply houses, you will discover several methods that are quite effective and involve varying degrees of cost. The most accurate method is a glass electrode apparatus for determining pH, capable of giving results accurate to within 0.01 units pH. Various colorimetric methods can also be utilized, but they are generally best applicable to colorless solution. Finally, several varieties of universal indicator papers are now available and give distinctly different colors for each 2 pH units. The color range of a typical paper of this type is generally red, orange, yellow, green, and blue.

MOUTH WASH: I wish to make a concentrated mouth wash containing a high proportion of antiseptic essential oils dissolved in alcohol. When a few drops of this solution are poured into water, a milky solution should be obtained, but all of the mixtures I have tried soon separate, on dilution, with the formation of an oily layer. How can I prepare a mixture that will give a stable, antiseptic emulsion? Newark.

When insoluble oils dissolved in alcohol are added to water, the oils separate as droplets. But, since there is nothing present to prevent the coalescence of these drops, they combine to form a layer of oil. An emulsifying agent, forming a film around each drop, must be present in order to prevent joining of individual droplet. Sulfonated castor oil, or triethanolamine oleate should be satisfactory as emulsifiers. The exact proportion of emulsifier required will depend upon the kind and amount of oils present, so that a certain amount of experiment, varying the proportions of insoluble oils and emulsifier, will be necessary.

INDELIBLE LIPSTICK: The lipstick we now make is satisfactory as regards its application to the lips except for the fact that it does not stay on long enough. Can you suggest changes in the inclosed formula to make a more indelible stain? New York.

The amount of bromo acid present in your stick is sufficient to give a good stain, but only if the coloring material is properly dissolved in the wax-oil mixture. Castor oil is the only important solvent present in your formula, but the amount is too small. We suggest that you decrease the amount of vegetable oil by ten parts and increase the castor oil correspondingly. Better yet, add a few per cent. of an active bromo acid solvent such as butyl stearate or one of the trade named products specifically recommended for the purposes.

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OCTOBER MOVEMENTS

Up

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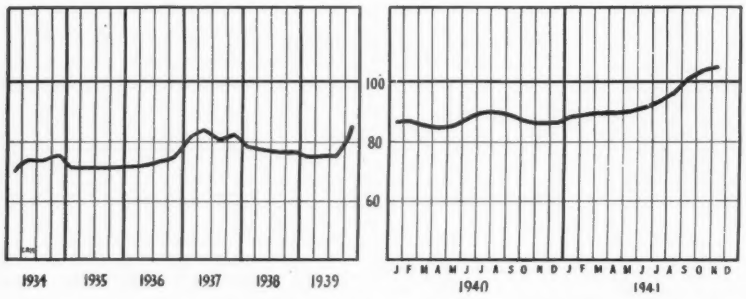
Aloin 85c
Bay oil 10c
Belladonna leaves 85c
Benzophenone 30c
Benzyl acetate 5c
Benzoate 5c
Propionate 20c
Salicylate 35c
Birch oil, southern 90c
Northern, sweet $1.50
Bois de Rose, Braz. 35c
Buchu leaves 2c
Cajuput oil 38c
Cananga oil, native 50c
Redist. 50c
Caraway oil $2
Carnauba Wax No. 1 4c
Cascara Sagrada 4c
Cedar wood oil 14c
Cinnamic alcohol $1.
Citronellol $1.50
Elder flowers 10c
Ginger oil $3.50
Jalap root 7c
Lavender spike oil 50c
Lemon grass oil 10c
Lime oil, dist. $1.
Linalool 75c
Lycopodium $3.00
Mastic gum $1.
Menthol, Jap. $1.
Chinese $1.
Methyl Anthranilate 15c
Olive oil, Edible 10c
Peppermint oil, nat. 25c
Redist. 15c
Phenylacetic acid 10c
Pine needle oil 30c
Pinus Sylvestris oil $1.90
Podophylin $2.40
Rosemary oil 20c
Saffron Valencia $2.
Safrol 50c
Styrax Genuine USP 25c

Down

Anise oil 5c
Arabic gum sorts 6½c
Citronella oil, Ceylon 25c
Java 10c
Cumin seed Morocco ½c
Damiana leaves 3c
Ergot 15c
Ipecac root 5c
Papain Pure Powd. 50c
Vanilla Beans Bourbon $3.

25 Cosmetic Raw Materials—Unweighted Price Index. 1926=100.

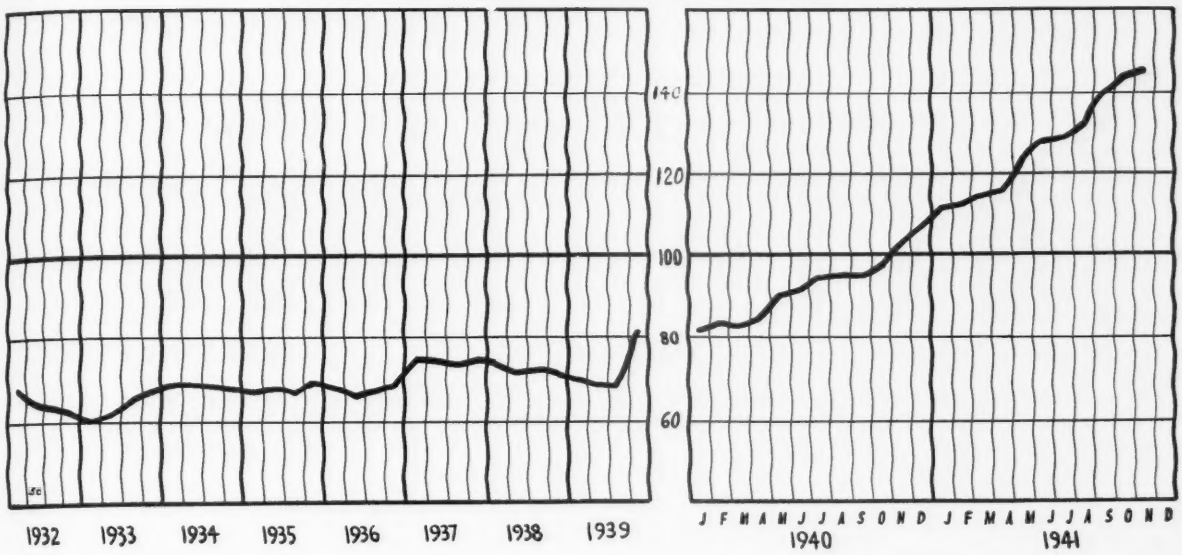


The cosmetic raw materials index advanced to 104.8 from the previous 103.0. The only change in this group was that in menthol which is now $8.75 a pound spot, New York. The position in glycerin continued to attract attention. For a long time this item was without price feature. During the past few months, however, glycerin showed considerable strength with all indications that this should be the basis on which to figure for the immediate future.

15 Botanicals—Weighted Price Index. 1926=100.

The botanicals index advanced to 283.9 from the previous 276.7. Agar agar was higher at $2.25 a pound; belladonna rose sharply to $3.25; buchu was up 2 cents a pound to 72 cents; cascara rose 4 cents to 20 cents. Ergot was lower on spot the new price level being $1.85 from the previous $2. Ipecac was also lower at $1.65 from the previous $1.70. The general trend was toward higher levels with scarcity in many items still predominant.

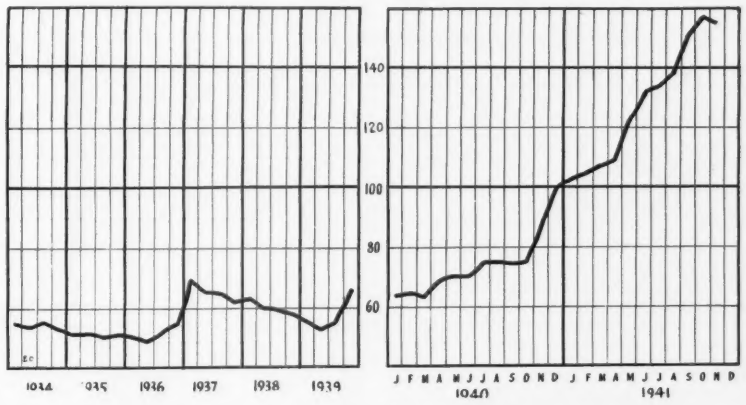
50 Raw Materials—Weighted Price Index. 1926=100.



The price index of fifty commodities for October, 1941 increased from 143.7 to 144.5. A shipment of vanilla beans through the blockage at Madagascar, made possible through the efforts of the State Department of the United States, was a particularly interesting development. Although this might indicate the possibility that acute raw material shortages might be relieved in a similar way, it should be pointed out that Great Britain does not look favorably on plans which minimize the effect of their blockage of Germany.

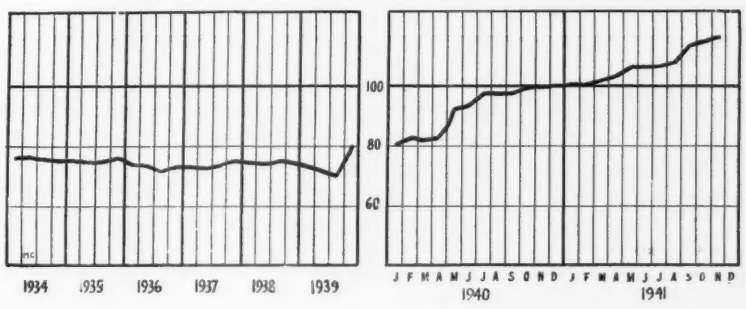
The essential oil index was down to 155.3 from the previous 157.0. This was caused by a decline in anise of 5 cents a pound to $1.05 and a decline of 20 cents a pound in the spot market price of citronella. Bois de Rose was higher at $4 a pound; Cananga was up to $11 and peppermint oil advanced to $3.85. Citronella had previously advanced to as high as $1.15 a pound. This item is increasingly important as the source of synthetic menthol.

15 Essential Oils—Weighted Price Index. 1926=100.



Medicinal chemicals index advanced to 116.8 from the previous 114.9. Mercury was higher at $197 a flask. When the charts were drawn menthol showed a price increase of $1 a pound making the market $8 a pound in New York. Since then, however, there was another sharp upward surge in this item so that the spot price is now at $8.75 a pound. It is reported that should relations between Japan and the United States continue as at present, natural menthol will be selling at $15 a pound by the end of this year.

15 Medicinal Chemicals—Weighted Price Index. 1926=100.



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• Prices quoted in this section were current on the first of this month.

GUM ARABIC

The largest shipment of gum arabic and gum mastic on record arrived here during the early part of October aboard the Brazilian flag steamer Taubate, following a voyage that started from the Island of Cyprus more than six months ago.

Reliable importer sources stated that over 15,000 bags of these gums, both of which are in short supply, were brought here. While the weight per package varies widely, it is estimated that the shipment now being unloaded represents from one-quarter to nearly one-half the normal annual imports of the gums.

Gum arabic, which constituted the bulk of the cargo, comes from Egypt. It is widely used by shoe polish manufacturers, ink makers, as a textile stiffener, in textile printing, linoleum, oil cloth and also importantly in the manufacture of pharmaceuticals.

While the precise amount of the shipment of arabic that arrived was not divulged, it is estimated that it may have run over 3,000,000 pounds. Before the war the imports of this gum ran from 8,500,000 to 9,000,000 pounds.

No estimate was made of the amount of gum mastic in the shipment, although in volume this was small. During normal years, the total imports run little more than 20,000 pounds.

Gum mastic is used in the manufacture of pharmaceutical products, varnishes, lacquers, adhesives, and incense.

With Greek ports virtually inaccessible today and with the shipments from Egypt here limited, the supplies that arrived during October will prove a boon.

The plight of a leading manufacturer of shoe polish because of the gum arabic shortage was recently cited. The gum gives the waxy and adhesive quality to the polish. Because future supplies were so uncertain, this manufacturer has been spending many thousands in laboratory fees to discover a synthetic substitute.

The Taubate, a vessel of the Lloyd Brasileiro Line, left Famagusta, Cyprus, on March 21. The gum mastic was loaded there. A port call was made at Alexandria, Egypt, where some of the gum arabic was loaded. The remainder of this gum cargo is believed to have been taken at Port Sudan, Anglo-Egyptian Sudan.

En route calls were also made at Port Said, Suez, Aden, Lourenco Marques, East London and Pernambuco for bunkers and repairs. The reason for the length of the voyage was not learned. Slow freighters following the route of the Taubate ordinarily make the voyage in about ninety days, whereas the Brazilian steamer was about 200 days under way.

The spot gum market undoubtedly reflected the arrival of this large shipment of gum arabic as the price position has eased off somewhat from the high level. The new price schedule for amber sorts is now from 18½c to 19½c a pound, whereas the previous level ranged from 25c to 26c a pound.

MENTHOL

Natural menthol rose to a new high level on the spot market with prices for both the Japanese and Chinese material up $1.75 a pound with the schedule now at from $8.75 to $8.85 a pound. Indications point to a continuance of the price trend in this item with well informed factors predicting that, unless there is some radical alteration in the general situation, the market level by the end of this year is likely to reach $15 a pound.

Only one small shipment of about 75 cases of natural menthol arrived in this market since early July. It is, of course, impossible at present to negotiate any business transactions with Japan. The Chinese situation is equally confused. Shanghai, the port of shipment for Chinese menthol is under the control of Japan, which undoubtedly accounts for the fact that American vessels have been forbidden by the United States to enter there. They continue to call at the port of Hong Kong but the Japanese have prohibited the shipment of menthol from Shanghai to Hong Kong so that problems confronting importers are most acute.

Considerable publicity has been given in the daily press to the three Japanese ships enroute to the United States. These ships, however, are carrying no cargo whatever, the purpose of there dispatch here being to affect the return to Japan of several thousand nationals who were requested by or desired to return to their own country.

The production of synthetic menthol which might have been expected to increase sharply under the influence of a restricted replacement market for natural goods has not improved materially. This is probably due to the much higher market for citronella oil, the raw material from which synthetic menthol is made. Citronella Java, the grade most widely used in producing synthetic menthol rose from 37c a pound in January to a high of 92c a pound in September and is currently selling at 75c a pound. This practically doubles the cost to manufacture synthetic menthol and in addition future supplies of adequate quantities of citronella oil are none to certain.

OLIVE OIL

Optimistic reports have been given out regarding olive trees in the main producing sections of Spain. During May and June large quantities of olive oil were released for domestic distribution, but the temporary ban on exports to overseas countries was maintained pending conclusion of arrangements for importing compensating amounts of other edible oils.

Estimates of Spain's 1940-41 olive oil production are still being revised, and accurate data from a Government agency are not available. The Non-Mineral Oil Regulating Committee estimates production at 317,000 metric tons, of which 53,000 tons were inedible oils (oils with an acid content of 7 per cent or above); but this figure is again being revised, since it conflicts with the higher estimates of the trade and the much lower figures derived from declarations submitted by producers.

These latter declare a production of 12,263 tons of fine oil having an acidity content of less than one per cent., 152,452 tons of ordinary oil with an acidity content of 1 to 3 per cent., 9,343 tons having an acidity content of 3 to 10 per cent., 2,549 tons with an acidity content of 10 to 15 per cent., 1,500 tons having an acidity content above 15 per cent., or a total of 178,107 metric tons. The Government realizes that producers under-declared in an effort to avoid the sale of their entire output at official prices, and it is believed that the declared tonnage probably represents about 60 per cent. of the total output.

The official July 1 estimate of the 1941 California olive crop is 58 per cent. of normal. Normal presumably means 100 per cent. possible tonnage, which last year would have been 67,300 tons. The actual 1940 crop harvest at last year-end was put at 43,000 tons. Since then the official estimates put the total at 50,000 tons. The difference was due to huge aggregate quantities of oil fruit picked

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from forgotten trees on Treasure Island, Los Angeles city parks, border rows, "dead trees" and desert sage brush, etc. The 1941 crop harvest at this rate will yield between 36,000 tons and 39,000 tons instead of the 30,000 tons commonly guessed. There is a market for 65,000 tons at high prices.

VANILLA BEANS

Most dealers in the vanilla bean market have been booking orders quite freely against a substantial shipment of Bourbon beans which is reported to have left Madagascar. Importers of vanilla have worked closely with the State Department to affect release of Bourbon beans and have finally succeeded. The West Hardaway has left Madagascar and is on the way here via Cape Town with a cargo of vanilla estimated at from 250,000 to 300,000 pounds.

The effect of this shipment, and the release of some other material held here, has already resulted in a reduction in the price of Bourbon vanilla of about $3 a pound. The spot market range is now from $10 to $11 a pound. The beans in question will probably arrive here early in December and, although a great part of the shipment is already earmarked for delivery direct to manufacturing consumers, the situation, it is said, will be easier at least until next January.

As far as Mexican beans are concerned, the situation still remains tight. There have been no price changes in Mexican grades. Cuts continue scarce at from $13 to $13.25 a pound and whole beans are in a similar position at a price range of from $13.50 to $14 a pound.

MERCURY

Mercury production at domestic mines in August amounted to 4,100 flasks, 100 flasks above the June rate and a new high monthly rate for many years, probably since the period of the country's greatest output in 1875 to 1883, according to the U. S. Bureau of Mines. In contradistinction to the large bulge in production in June when rich strikes in a limited area caused the increase, the advance in August was shared by a number of properties scattered over a wide area. Consumption likewise showed gains, from the revised total of 3,300 in July to 3,600 in August, but it continued to be below increased mine production.

Quoted prices for mercury during August ranged from $192 to $195 a flask, the lowest level prevailing as the month closed.

The canvass of mercury consumers was expanded to 100 per cent. coverage in July and as a result the total for July has been revised from 3,200 as indicated by the usual sample survey, to 3,300 flasks. These figures are in terms of virgin mercury but include use of virgin in the production of redistilled metal. Consequently, they represent total use of the metal for the periods given, except that they do not cover the consumption of mercury that was redistilled from scrap. At the time the July survey was made, August requirements for virgin mercury were expected to total nearly 4,000 flasks. Final results for August consumption showed that the expected requirements for that month were not far from actual needs, being too high by 10 per cent.

Stocks in consumers' and dealers' hands at the end of August were reported as 11,600 flasks, compared with revised figures of 11,700 flasks at the end of July. These figures do not include about 1,100 flasks in the hands of consumers of redistilled metal at the end of August, the same quantity as at the end of July. Those producers who report on a monthly basis to the bureau indicated they held 557 flasks at the end of August, compared with 438 flasks at the end of July.

The current spot market price of mercury is $197 a flask

ALCOHOL

The alcohol situation, which recently led to considerable concern in Washington defense circles, improved greatly during August as manufacturers forced production to a new record figure. Supplies at the end of the month also increased more than 3,000,000 gallons.

Ethyl alcohol production (basic industrial alcohol prior to processing) amounted to 34,299,071 proof gallons during August, as compared with 33,029,645 gallons produced in July, according to the monthly report of the Alcohol Tax Unit, United States Treasury Department.

The August production rate indicated that the alcohol industry was able to push outputs of the basic industrial and military raw material, vitally needed in powder production, to an annual production basis of 411,600,000 proof gallons. These figures do not include alcohol which liquor distilling plants have been asked to make for munitions plants, production of which begins November 1.

Stocks of ethyl alcohol in warehouses increased from the low point of 7,108,123 gallons at the end of July to 10,116,823 gallons at the close of August, the first material improvement in alcohol stocks in many months.

Withdrawals of pure alcohol, taxpaid, from warehouses amounted to 3,071,188 gallons during August against 2,837,645 gallons in July and 1,423,507 gallons during August, 1940.

Withdrawals of ethyl alcohol, tax free, for denaturation totaled 27,327,070 gallons in August, as against 33,223,214 gallons in July, and 20,917,775 gallons in August a year ago.

Production of specially denatured alcohol amounted to 13,276,885 wine gallons last month, contrasted with 13,802,105 gallons in July, and 9,681,313 gallons made in August, 1940.

Stocks of specially denatured also increased from 669,521 wine gallons in July to 834,879 gallons in August.

Production of completely denatured alcohol totaled 1,787,876 gallons, compared with 1,439,715 gallons in July.

Ethyl alcohol production for the two months, July and August, totaled 67,319,716 proof gallons, compared with 46,551,326 proof gallons during the same time in 1940.

Tax-free withdrawals of ethyl alcohol for the period were 54,891,544 gallons, against 40,539,206 gallons during July-August last year.

Small-scale bootleg trading in ethyl alcohol, which was placed under ceilings on September 16, was reported in the market here recently, but traders said that there was little prospect that any policing activities would be undertaken to halt the ceiling violations. Prices have varied sharply and it was reported that as high as 80c a gallon has been paid in lots of one to five drums for grades which under the ceiling schedule should not have been sold above a range of 38½c to 40c.

This type of trading, which has come from second hands and even third hands, was said to result from the fact that many small users, unable to obtain the alcohol in first hands and faced with the necessity of closing unless they could get the alcohol, were willing to pay whatever might be necessary. Some sales were said to have originated with companies which had been unable to obtain other materials needed in their own production and therefore possessed what amounted to surpluses.

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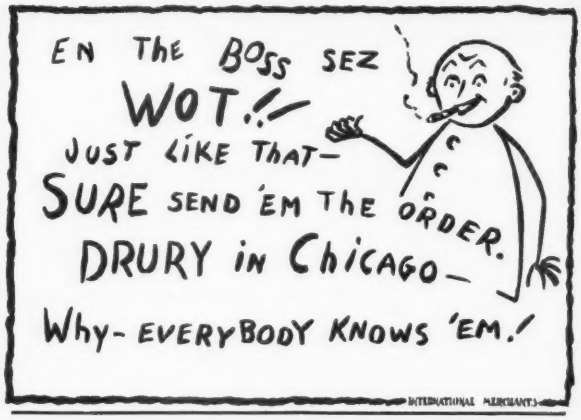

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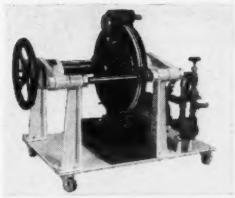

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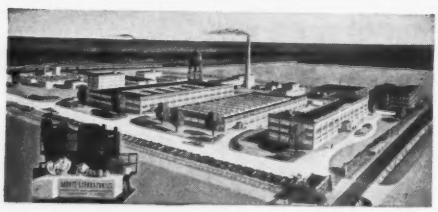

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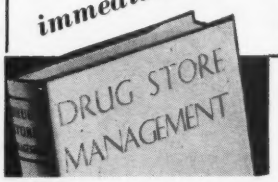

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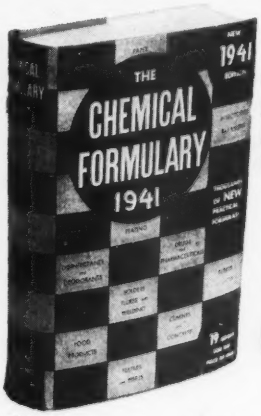

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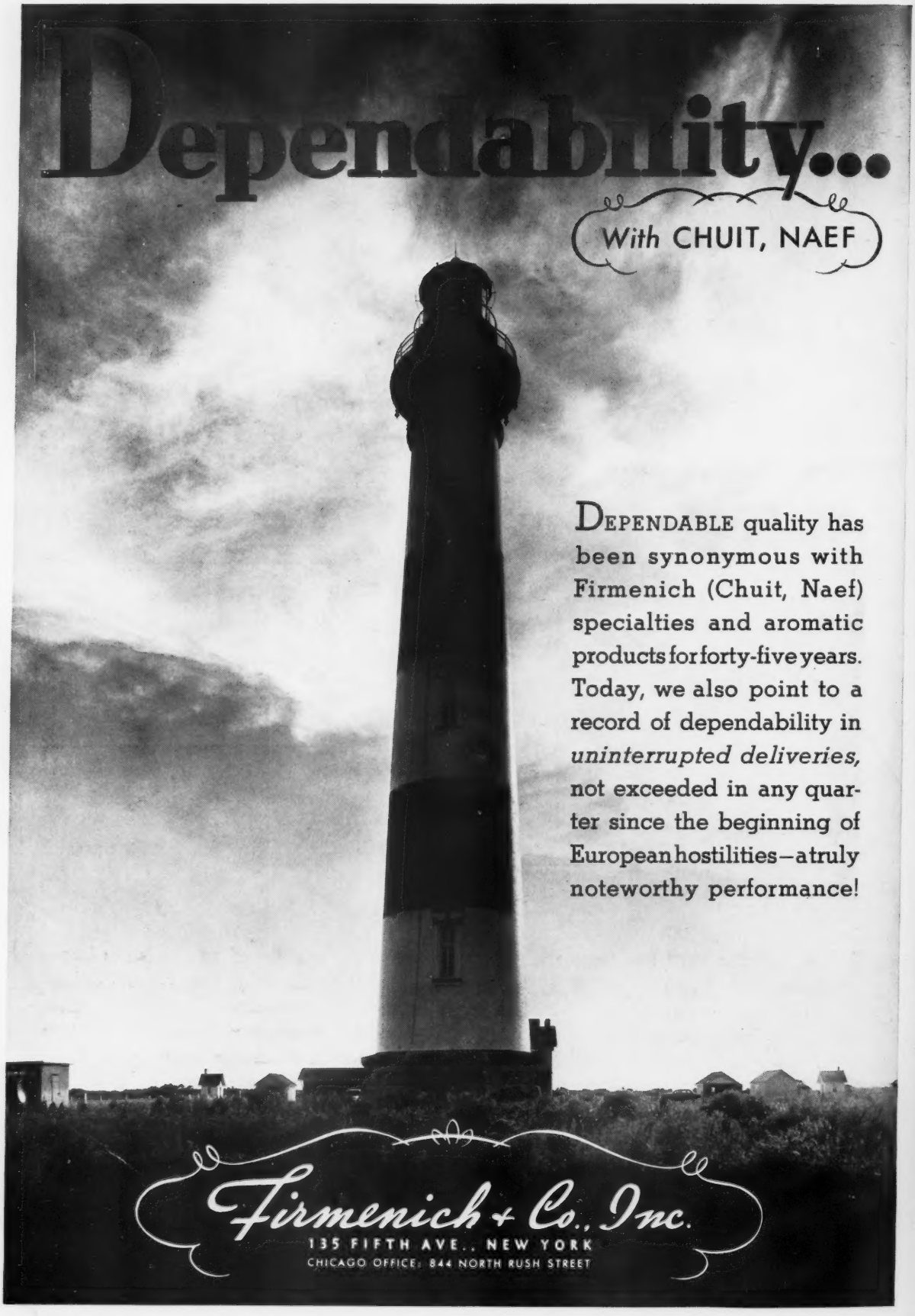
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